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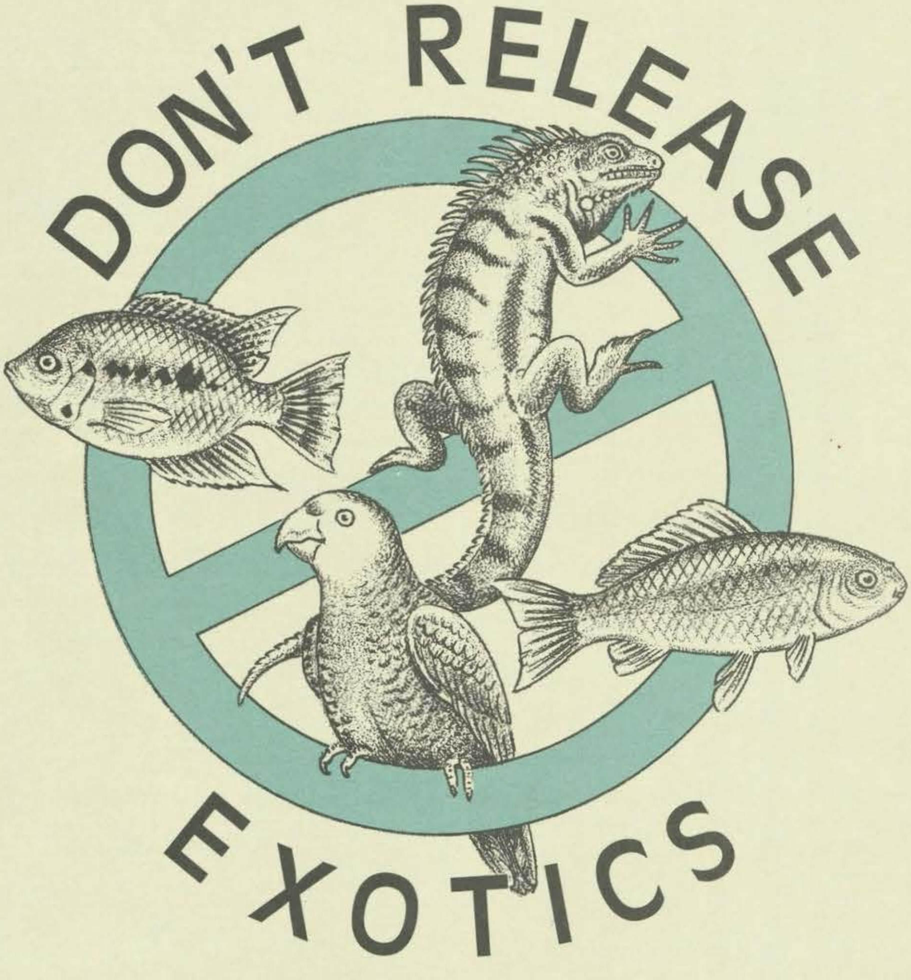

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Florida
Game & Fresh Water Fish Commission

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May-June
1982

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directed toward the
protection, restoration,
nhancement and wise use of
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FLORIDA WILDLIFE

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THE COVERS

Typical of the outstanding work of Land O' Lakes photographer Burton McNeely is this issue's cover showing fish and fisherman at a critical moment: Will the bass hit or will it ignore the lure? On the back cover is another of McNeely's photos, a school of mangrove snappers. Starting on page 22, more of McNeely.

Sam Westbrook

Good Ol' Days, Good Ol' Boys

Us Alexanders never have come outfitted with much overstuffing upstairs, if you know what I mean, and that is especially true when it comes to making money. My Uncle Amos is the one blot on our family tree, ever since he was suckered into buying a chunk of low ground on the St. Johns River south of Lake George during a lengthy dry spell.

Actually he bought it because it had the prettiest spring on it you ever saw, full of bass running back and forth to the river. Of course, the water came up eventually and getting into the hammock got too thick for a boat, and too thin for his old Jeep. So it just laid there a few years with Uncle cussing a fellow called Tacs Collector.

One year the water dropped enough for the swamp to dry until it was as pretty as peach fuzz and a rich Yankee fishing the river found the spring outlet. First he tried throwing a hat full of money at Uncle, but Amos was about as honest as a redneck can be, and he certainly was not going to let a stranger know he'd bit on the same situation, so he kept saying no. Finally there was a washtub full involved and Uncle allowed as how there is just so much a man can stand, so

and Other Tales

By Carson Alexander

he sold it. That made him the first Alexander with more than a dollar ninety-eight in the bank someone did not own more than he did.

Uncle Amos had a bass fishing buddy in Palatka who was an accidental lawyer—you know, one of those who is around when someone runs into somebody. He recommended Uncle put his money into something called ATT. I know because I was fishing with them at the time. I even asked where ATT was at, but the lawyer just looked at me suspicious like and went back to chunking a Dalton Special, so I shut up.

Actually I had in mind to ask again, but about that time he hung that plug in a water oak, and me being in the bow, Amos drove right in so I could unhook it. Just as I was reaching, I saw it was hanging onto one of those paper-wasp nests about the size of a syrup kettle, and the big black scapers were riled! In moving to the back of the boat, I guess I did stomp on the lawyer's hand a bit and put somewhat of a permanent set in his casting rod. How was I to know diving off the stern would push them under the fool tree?

After it was sorted out, them being all swole up like that, and a little irritable, it was not the time to ask where ATT was at.

It was not long after that Uncle moved into town and the family lost track of him, except for a word now and then. It seems like he had joined something called a country club, which added up a little strange to me knowing where he'd just come from, but the news was he had given up bass fishing and took up with golf! Now anybody that quits a real sport for chasing a little ball around a pasture is a bit strange. I figured those wasp stings must have been worse than two weeks in the hospital said.

The next thing we hear he is doing a two-year stretch at Raiford, just out from Starke, which is a different kind of country club.

We needed a new axe anyway, so I decided to try to find out what was happening. I was just coming out of the Palatka hardware to put my purchase in the truck when I'll be dogged if I didn't spot Uncle Amos' lawyer friend walking toward me. I hollered and waved, happy to see him since he just might know some answers. It did not occur to me until later, I waved the hand with the axe.

I swear that man was a fine accidental lawyer, he let out a squall, ran out into traffic, and sure enough some one hit some body—his. He wasn't hurt much, just kept yelling every time I tried to get through the crowd to talk to him, until finally an ambulance happened by to cart him away.

Now I was some mystified. Next visiting day I put my old pickup into a visitor's space at Raiford. After all, family is family, besides how many Alexanders have ever been just visitors there?

Uncle Amos was right glad to see me, and not the least bit shy telling me about his problems, at least until a couple mean-looking guards drug him away when he became a mite upset at the last. It seems this is what happened.

After moving to town, he and the accidental lawyer went to shooting golf regular, and Uncle got plucked to join the Club. As he said, it was quite a stretch of blue ribbon to be plucked to join out of so many other folks in that town. He said he never knew there was such a hellsamighty bunch of people interested in ATT. They hid behind trees to ask him questions, he guessed because he was such a fine rough player. At that time he said he was as happy as a cat with the green apple trots on four acres of beach sand!

This Club had its pastures laid around a little water. In fact, Uncle said he could have pitched nine shiners in 19 directions from anywhere, and 18 of them would have lived! Not long after he had drowned a few things he called Tru-Flites, it was noticeable there were bass in that water. It also seemed, one of the Club rules was against fishing for anything, including his Tru-Flites, since there were alligators living around just to enforce the rules.

Naturally Uncle Amos talked the lawyer into carrying a three-piece rod out of sight in their golf bags for middle-of-the-week days when no crowd was around, and they caught a lot of bass that way. In the process they encountered a particularly ornery saurian in the best 'hole,' the 13th as I remember. If you ever saw a set of large teeth on four legs intent on eating your

Sam Westbrook

Good Ol' Days, Good Ol' Boys and Other Tales

nine iron up to your shoulder just as you are prying a good fish out of the grass, perhaps what Amos did would be understandable. After they had scorched the green with a few high-stepping trips away from the water, Uncle began carrying his old .44 cannon—just in case—something the lawyer did not know.

That "just in case" day was a Wednesday. The lawyer sank his putt on the 13th while Amos was surveying a little patch of woods nearby with bank shots; you know angles off of various trees with four-letter word computation. A heavy swirl in the lake led his friend into a casting rod chip shot which ended up tied to a going-away submarine. After about 20 minutes of exercise up and down the shore (Amos said his old buddy was panting like a wind-broke mule as he came out of the woods) the lawyer was heaving up the bank the biggest bass either had ever seen. (In court, contention was made it was a world's record, robbed by a homicidal friend.)

Amos said the fish would possibly push 18 pounds, far from a record, but at the time he arrived his old buddy was trying to climb the 13th flag with his fish, Big Teeth popping like a four-dollar shotgun right behind. So he hauled out the cannon and blazed away!

Unfortunately Uncle is not a Wyatt Urp! He clipped a fine rod, old 'gator began contentedly chewing, while the friend is running in and out of the gunsight as Uncle touched off a few more. Missed everything, except the 13th pole, destroying more private property. Finally in a fit of desperation he walked up and shot the sated 'gator between the eyes at point blank range.

S of F (State of Florida) took a dim view of the whole proceedings, especially as the accidental lawyer happened to be a son-in-law of the trial judge, both fishermen and considerable upset.

It just goes to prove, there is a lot of things you cannot trust, like money, and especially golf, Uncle said. And I forgot to ask, so I still am wondering where ATT is at! □

It's not a secret anymore. Glades fishermen tell how to catch Lake

Okeechobee Snook

John Hundley let out a whoop, "It's a big one, Derryl!" His 5000C Garcia reel spit out line as the unknown assailant of his silver Devil's Horse raced for deeper water.

Hundley, a Pahokee sugarcane grower, and his fishing partner, Derryl Mathis of Belle Glade, had enjoyed consistent success landing moderate size largemouth bass on previous mornings in the same "fishing hole" near Lake Harbor in Lake Okeechobee. But now Hundley sensed his present adversary was larger and more challenging.

Hundley tightened his drag and began a tug of war to exhaust his anticipated trophy. To his surprise, the bass never surfaced, but continued its deep lunges and runs.

After 10 minutes of combat, Hundley had recovered his line and maneuvered his opponent to the boat. Mathis leaned over the bow and netted Hundley's catch.

"Well, well!" laughed Mathis as he held up the fish for Hundley to inspect.

"What the ....?" exclaimed Hundley. Dangling on the line with a mouthful of plug was a 13-pound silver fish with a familiar black lateral stripe on its sides. Hundley had just joined the ever-increasing number of Lake Okeechobee anglers who have experienced the thrill of hooking and landing one of the big lake's elusive snook.

For Mathis, it was no surprise. He had fished the lake since 1940 and had already landed more than 30 snook on various fishing expeditions. Like most native Glades residents, Hundley had heard tales of the snook but this was his first catch in the big, freshwater lake, and it wouldn't be his last. Two casts later, he hooked his second Okeechobee snook, an 11-pound keeper.

By Bill Boe

For Hundley, the fishing trip was over. It was now bragging time at Slim's Fish Camp!

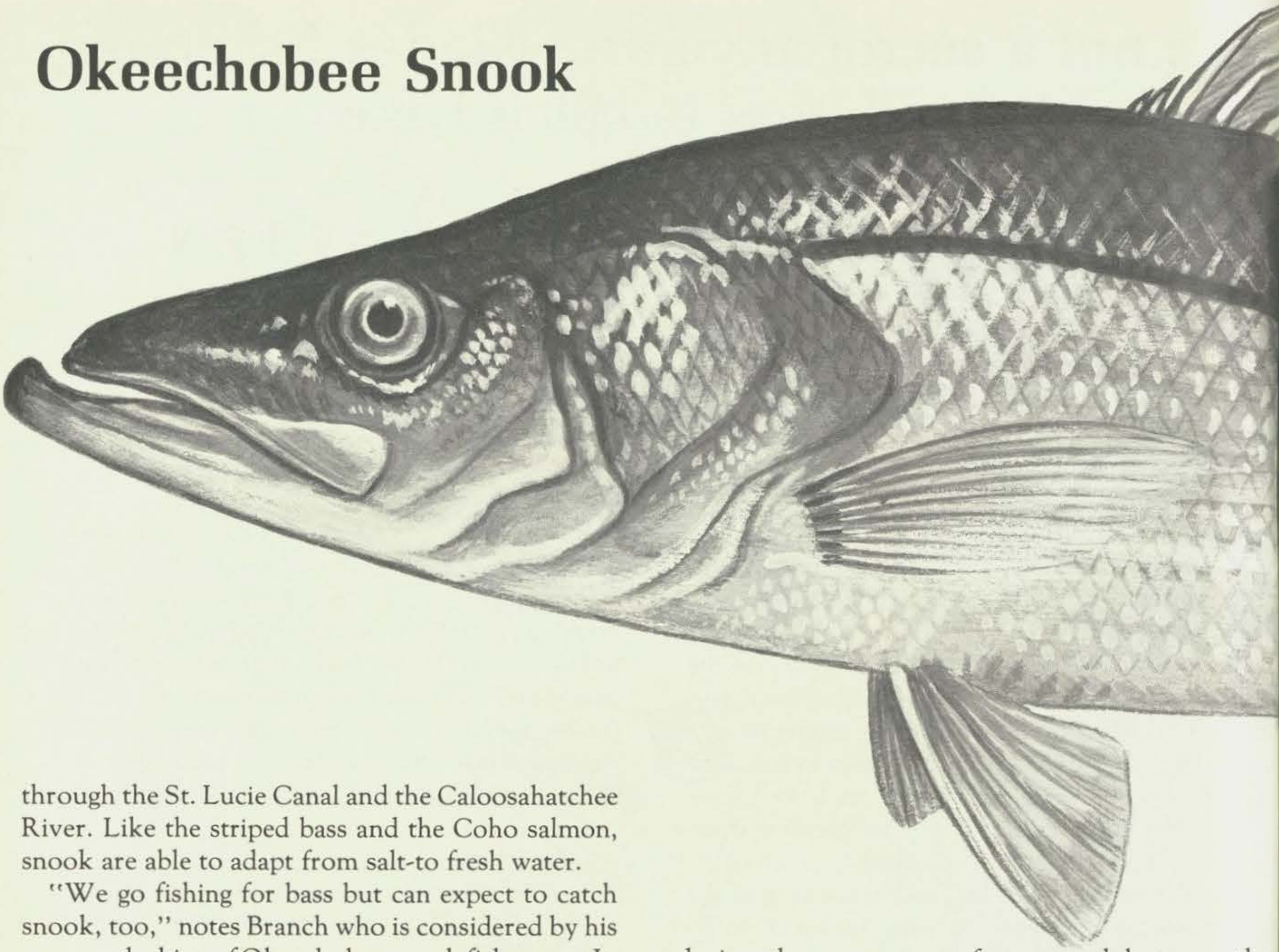
The presence of snook in Lake Okeechobee is an established fact to Glades residents but is almost unknown to others. Few people would expect a viable population of a saltwater game fish in a freshwater lake. But the snook are there and Glades fishermen insist the population is increasing.

Snook gained entry into Lake Okeechobee

John Hundley and son, Scott, display a pair of snook, an 11- and a 13-pounder, from rim channel south of Belle Glade.

Bill Boe

Okeechobee Snook



through the St. Lucie Canal and the Caloosahatchee River. Like the striped bass and the Coho salmon, snook are able to adapt from salt-to fresh water.

"We go fishing for bass but can expect to catch snook, too," notes Branch who is considered by his peers as the king of Okeechobee snook fishermen. In recent years, Branch has caught more than 40 Okeechobee snook ranging in size from four to 16 pounds.

Branch thinks recent weather conditions have benefited Okeechobee snook fishermen.

"As a result of the south Florida drought, Lake Okeechobee is below normal depth and fish are concentrated in the deeper areas. I encountered snook daily during early daylight fishing between Port Mayaca and the Pahokee airport with most catches near Pahokee State Recreational Area just south of Pahokee Harbor."

He notes, "The lake channel is close to shore and the bass and snook are feeding on small bass, bream and shad along the drop-off ledges between the channel and the shoreline. All I do is drift in a john boat, throw my plug close to the shoreline, work it across the drop-off ledge and wait for the strikes."

While working the ledge area, Branch uses a silver Rapala #13S or an orange Devil's Horse.

"The Rapala will run deep on a fast retrieve and bring the snook up off the ledge. I hooked a large snook off the shoreline at Canal Point using a fast retrieve but the snook came up fighting and ripped my tackle up."

As the water level dropped in the Pahokee area during the summer, reefs appeared between the shoreline and the channel. To the delight of Branch and his friends, snook began feeding in small schools on both the shore and channel sides of the reefs.

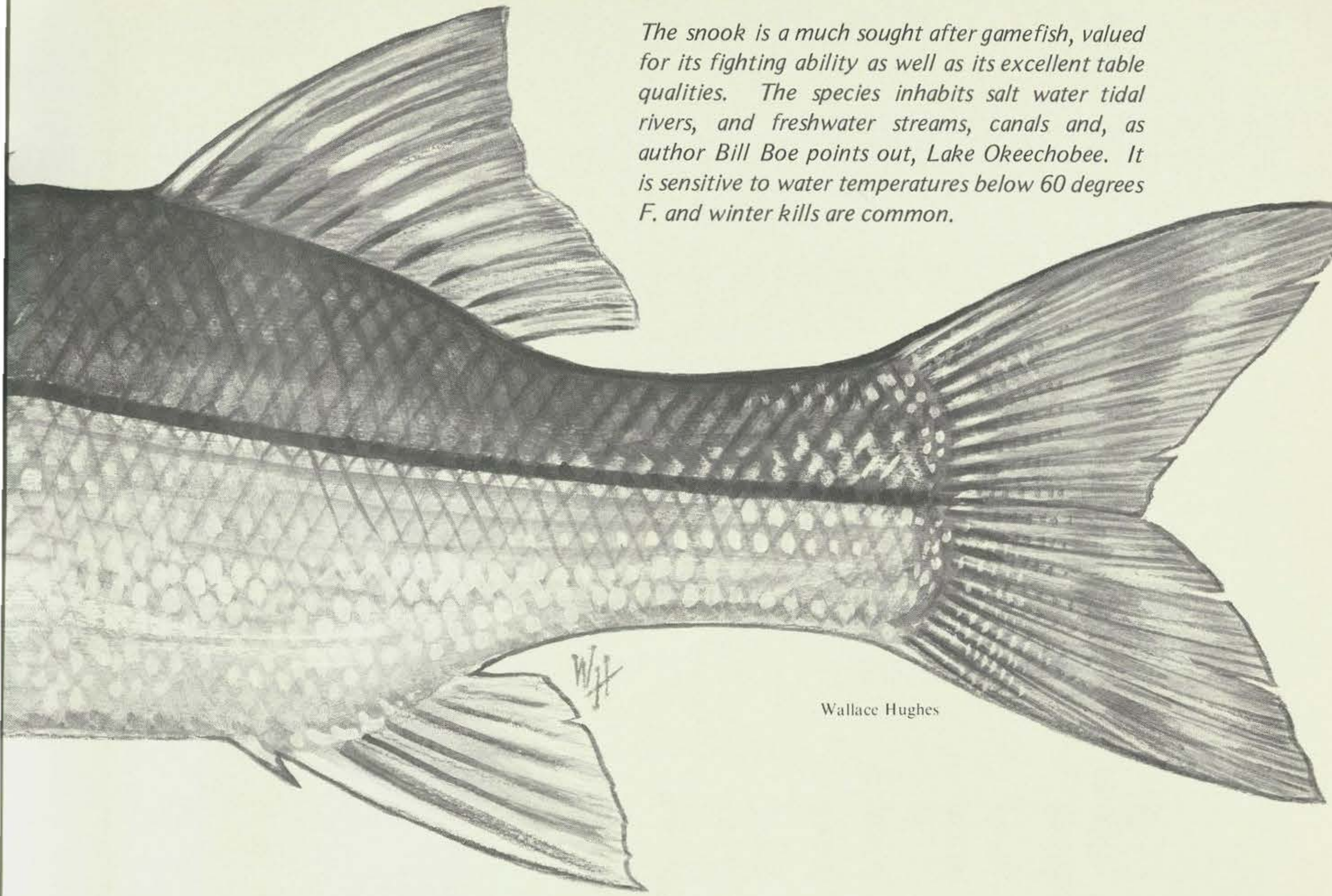
"One morning a school of 15 to 20 snook were feeding along the shoreline at Pahokee Recreational Area. I'd throw my Devil's Horse or Rapala beyond the snook and work a fast retrieve through them. Sometimes they'd hit a Devil's Horse five or six times on a retrieve, really busting it hard. They seem to hit harder and firmer on fast retrieves. Sometimes they'd hit as soon as the plug hit the water."

Near Channel Marker 71, south of Pahokee, Branch landed his largest snook, a 16-pounder.

"It was fun all summer. I caught snook for three consecutive days and had strikes every time I hit the lake. The snook are packed with a fat—really healthy, beautiful fish. They've got good flavor; just as good or better than the saltwater snook I've caught."

Mathis claims his 41 years of Lake Okeechobee fishing has provided him with many snook memories, too.

"I used to troll with 9- to 10-inch Gator Spoons between the habor and Clewiston in the rim canal channel. During one trip, seven of us had lines out at the same time and we hit a school of snook. Within



The snook is a much sought after gamefish, valued for its fighting ability as well as its excellent table qualities. The species inhabits salt water tidal rivers, and freshwater streams, canals and, as author Bill Boe points out, Lake Okeechobee. It is sensitive to water temperatures below 60 degrees F. and winter kills are common.

seconds, all seven of us had a snook on our line."

During a recent bass tournament, Mathis and fishing partner, McIntosh, found themselves casting into a school of 25 to 30 snook feeding between the channel and rocky shoreline at Port Mayaca.

"I'd throw the plug into the school, allow a few seconds count down and then work a rapid crank. It'd look like a shad running and provide a lot of action." Mathis released his four snook, "mere five pounders, about 20 inches long."

McIntosh found the snook also hungry for his Silver Rebel.

"The school was striking on top and making gigantic swirls. They'd make runs, hit the lure, then jump and throw it. Sometimes they'd hit it and run a clip of 20 or 30 feet. A big snook finally took the Rebel and broke my line."

Mathis has experienced consistent success catching snook with white Johnny Rattler and white with green back Devil's Horse lures. His largest catch to date is a 14-pound snook landed off the shoreline behind the Pahokee airport.

McIntosh's lake ventures have convinced him Lake Okeechobee snook prefer fire tiger or silver Bombers as underwater crank bait, while white or silver Heddon and Devil's Horse are effective top-water baits.

"My best luck with snook has been fishing the rocky points along the shore five to 10 miles north or south of where the St. Lucie Canal enters the lake. I also caught a 10-pound tarpon in that area."

Mathis is confident snook can be caught by "any good fisherman" in the rim canal between Lake Harbor and Clewiston, especially in the vicinities of markers 92 and 94.

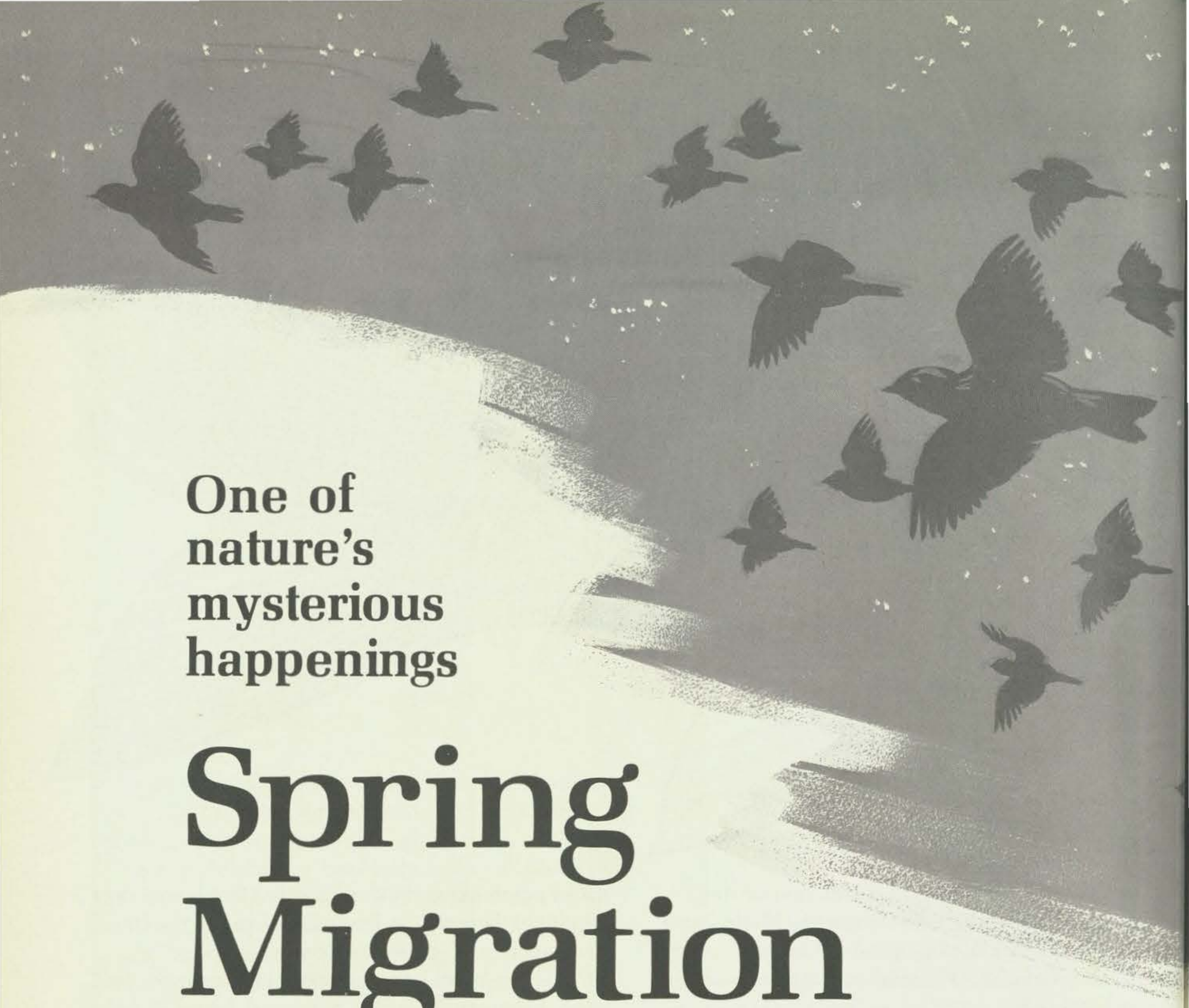
"They'll catch snook, too, along the shoreline between Port Mayaca and the Pahokee airport. The best times to hit them are early morning or late evening during the summer months, about July through Labor Day."

Hundley's "fishing hole" for snook is between Belle Glade and Lake Harbor where the channel from the open lake meets the rim canal channel that runs along the shoreline of the Hoover Dike. Hundley fished the small cuts where the two channels meet.

"I catch snook in the area where the water changes from three feet to about 14 feet. The snook and bass are in the deeper areas feeding on bait swimming from shallow to deep water."

Branch feels the low lake level has extended good snook fishing into the fall and winter months.

He predicted, "If you fish near the big rocks along the shore and the sharp drop offs, you'll catch them, especially between Pahokee Harbor south to Jones Pumphouse near the Pahokee airport." ☐



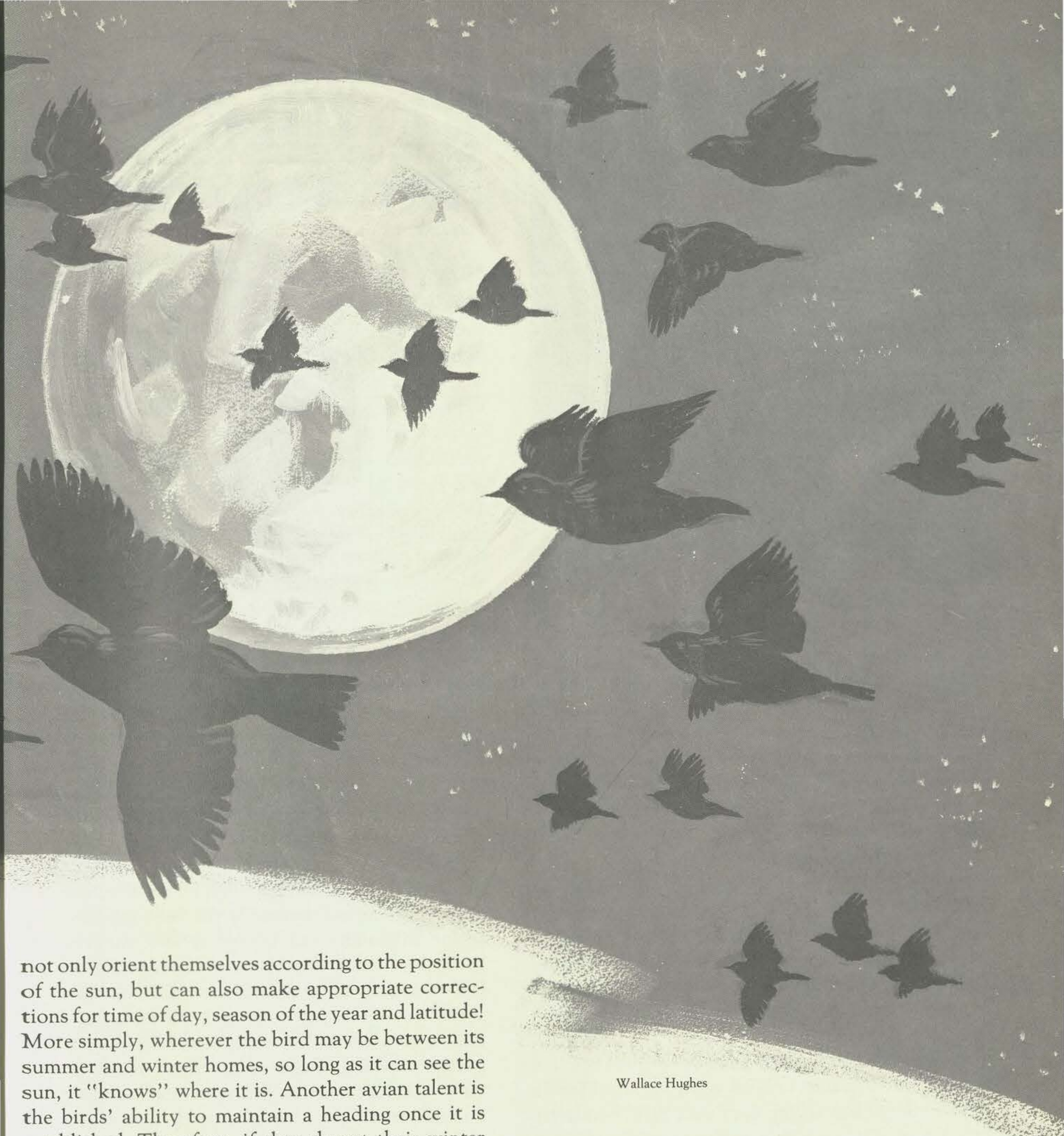
One of nature's mysterious happenings

Spring Migration

One of the most interesting and exciting events to a dyed-in-the-wool bird watcher, whether a professional ornithologist or a casual spare-time birder, is the spring migration. Species that have been absent or sparsely represented in a locale may suddenly become conspicuous by their abundance. Conversely, a species that is locally plentiful one day may be completely absent the next.

How may such drastic changes be explained? We must begin with the fact that some birds migrate for great distances, but others migrate only short distances, if at all. Those I shall focus on here are groups of perching birds that almost surely evolved in the tropics of the Western Hemisphere where most of their nearest of kin now reside. These include the flycatchers, vireos, warblers, orioles, tanagers, buntings and some of the thrushes. However social-minded a bird may be during most of the year, it does not enjoy close communion with members of its kind, other than its mate, during the breeding season. Probably because reproduction led to such overcrowding, individuals spread outward from their places of origin as the breeding season approached, but returned to their ancestral home for the rest of the year. Thus, the migratory habit may have become established and inherent in the species and ever-expanding breeding ranges eventually brought many of them into the United States and Canada. But only a small minority have altered the habit of returning to their more tropical place of origin for the winter. Although those that leave may truly benefit by escaping severe winter weather, they are not driven south by such weather as many are already on the move by late July and August.

The most perplexing question about this annual phenomenon has been how each bird can manage, year after year, to find its own neighborhood in spring and presumably in fall? As most of them migrate chiefly by night, following landmarks is impossible. Bizarre as it may seem, the answer seems to be that birds, like some other higher animals, can


Wallace Hughes

not only orient themselves according to the position of the sun, but can also make appropriate corrections for time of day, season of the year and latitude! More simply, wherever the bird may be between its summer and winter homes, so long as it can see the sun, it "knows" where it is. Another avian talent is the birds' ability to maintain a heading once it is established. Therefore, if they depart their winter home headed north late in the day, they can continue to head in that direction during the long hours of darkness. But suppose strong flanking winds blow them far off course, as they frequently do? No matter. Once the sun rises, they can correct the "error" and reorient themselves, although a strong wind may still slow their progress for a while.

Much has been written over the years regarding the routes taken by species that breed in North America and winter in Central and South America. Ever since the day of Wells Cooke early in this century, most ornithologists have thought that many of these species make a direct flight across the Gulf of Mexico. In the 1940s, this theory was questioned by an investigator in Texas who maintained that all species moved around the eastern or western side of the Gulf—that is, up the Mexico-Texas coast or via

By
Henry M. Stevenson

Baltimore Oriole Wallace Hughes

Spring Migration

the West Indies and Florida peninsula. Certainly, this circum-Gulf route is followed by many species of water birds but not by many songbirds.

The fact that enormous numbers of perching birds do cross the Gulf of Mexico in spring helps explain the phenomena described in the first two paragraphs. With the shortest distance across the Gulf of Mexico (Yucatan-Louisiana coast) less than 600 miles, a bird leaving Yucatan late one afternoon, given a good tail wind, may reach the northern Gulf coast by early or mid-afternoon the following day. But why stop there if the weather continues favorable for migration? Well, they usually don't stop but continue flying northward until near dusk. Under such conditions, there is a dearth of spring migrants on the coast—a "coastal hiatus," as it has called it—but greater numbers occur from 100 to 300 miles farther north.

A bird watcher can expect to witness such a scarcity of migrants on the coast of the Florida panhandle on fine spring days with light, southerly breezes. Either of two weather phenomena can change this picture quickly: an appreciable rainfall or a change of wind direction. As the late Francis Weston used to say, "They don't like to get their feathers wet." They can continue to fly into a head wind for some time, depending largely on its velocity, but usually alight if they see suitable habitat below. If they have flown long over the water, they may sometimes be seen approaching shore, flying barely above the tops of the largest waves and sometimes landing on the nearly bare sand dunes. After several hours of strong north winds, especially if accompanied by rain, the multi-colored sights witnessed by several ornithologists have been repeated on many occasions by other observers. By the same token, if the observer gets to the coast just a day late, after the wind has shifted to the south, he can expect few birds other than resident species.

One of the games often indulged in by bird watchers, both amateurs and professionals, is organized, multi-party bird counts over a circumscribed area during a single day. The Christmas Bird Counts, originally sponsored by the National Audubon Society, are those most familiar to the general public. During my years in Tallahassee, however, many such counts have been held during the heights of the spring and fall migrations when one may expect a larger number of species than in winter. Depending on such variables as number of field parties and weather conditions, counts in Wakulla and Franklin counties accounted for about 160 to 190 species for the day. Multi-party counts, of course, must be set well in advance of pertinent weather forecasts and we seemed fated never to have the "right" kind of weather for grounding migrants when we had enough parties in the field. Our count of April 19, 1954, was held just at the end of a cold front and birds were plentiful but we had only four parties to search for them and only 172 species were found. With the wrong weather conditions on April 29, 1961, seven parties located only 165 species. And so it went for 20 efforts, the largest total being 191 species. Yet we felt that with the right weather conditions and enough field parties, we could crack the 200 barrier. Finally, on April 19, 1969, we had planned one that coincided with a cold front. It was my good fortune that day to spend the afternoon on St. George Island, probably the best area for passerine migrants, and my party saw numbers of catbirds, vireos, warblers, tanagers, orioles and buntings coming in against the wind late that day. Observers in coastal woodlands on Alligator Point and at St. Marks Light enjoyed the same treat, and parties working inland areas helped boost the list with resident and lingering winter birds. Sure enough, when all of the nine party leaders met and compiled the totals, we found that 205 species and about 16,500 individuals had been recorded that day. Some very colorful migrants present in unusual numbers were 100 summer tanagers, six scarlet tanagers, 13 Baltimore orioles, 46 indigo buntings, 38 hooded warblers, 38 prairie warblers and 15 rose-breasted grosbeaks. Most of these have been recorded on other days in larger numbers but, unfortunately, no organized bird counts had been planned on those days. This fine day was surely one to be remembered. One may hope that destruction of habitat and excessive use of pesticides will not prevent future generations from enjoying a similar privilege. □

ENJOY THE OUTDOORS

On Florida's Wildlife Management Areas • By Ron Stock

If you enjoy outdoor activities such as fishing, horseback riding, hiking, bicycling or nature study, consider utilizing the 4.8 million acres of Florida's wildlife management area system through early fall.

"Wildlife management areas provide many wonderful opportunities to people who want to enjoy the natural environment," said Fred W. Stanberry, director of the Division of Wildlife for the Game and Fresh Water Fish Commission.

He said the Commission encourages such outings on most all lands with the Type I wildlife management area system throughout the state.

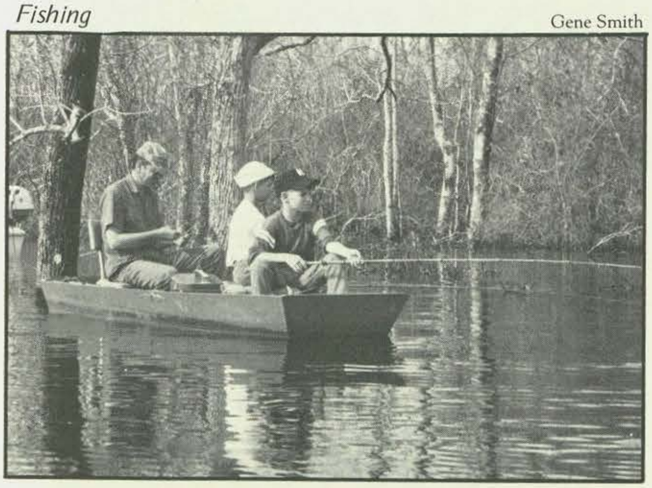
"Florida is very fortunate to have probably the largest volume of state-controlled lands open for recreational use in the southeastern United States," he said. He mentioned that the U.S. Department of Interior and the Department of Natural Resources also have lands available for public use.

"Concerning state wildlife management areas, depending on the site, most any outdoor activity can be pursued from bird watching to hiking," he said.

Wildlife management areas which are opened for multi-purpose recreational use, but do not offer camping, are La Floresta Perdida, Point Washington, G.U. Parker, Edward Ball, Robert Brent, Joe Budd (through October 31 from 7 a.m. to 8 p.m.), Ochlockonee River, Talquin, Tide Swamp, Steinhatchee, Cypress Creek, Lake Butler, Lochloosa, Ocala Salt Springs, Relay tract, Tomoka (a portion), Bull Creek, Three Lakes and Browns Farm.

Management areas offering multi-purpose recreational use, including overnight camping, are Blackwater, Apalachee, Apalachicola, Aucilla (camping in Goose Pasture campsite only), Citrus, Croom, Richloam, Osceola, Nassau, Ocala, J.W. Corbett (weekends only to August 29), Everglades, Cecil Webb, Big Cypress, Holeyland, and Rotenberger.

Fishing Gene Smith



Bicycling Dan Stainer

"A portion of the Florida Hiking Trail passes through the Georgia-Pacific Wildlife Management Area," Stanberry said. "Only those areas immediately adjacent to the trail are open to the public."

Persons wishing to utilize the Lykes Bros. Fisheating Creek Wildlife Management Area must obtain a $5 permit from Lykes Bros. Inc., campground in Palmdale.

On the J.W. Corbett and Cecil M. Webb wildlife management areas, persons planning recreational use are required to have wildlife management area permits that may be purchased at the office of the county tax collector.

The permit costs $10 for adults and $2.50 for children under the age of 15 (members of a permittee's family and children under the age of 15 traveling in the company of a permittee are exempt from permit requirments).

Persons interested in utilizing management areas for recreational use are asked to contact their nearest Commission field office for regulations.

"This time of year is perfect for outings with the family," Stanberry said. "We hope that all citizens will realize the value of these management areas as a source of varied recreational use." □

Hunter Education News

Public Attitudes Study

The U.S. Fish and Wildlife Service has been working for quite some time on a major study titled "Public Attitudes Toward Critical Wildlife and Natural Habitat Issues." Phase 1 (of four phases) has been published and it has some very interesting information for anyone concerned with the future of hunting in this country.

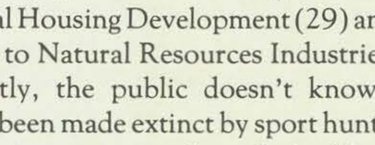
This study was performed over a three-year period with 2,759 interviews on a national probability sample of people 18 and over, so it certainly was done in considerable depth. Let's look at some of the findings.

Respondents were asked to indicate "the first and second most important reasons for the endangerment and extinction of the greatest number of wild animal species in the United States during the past 25 years."

Well, even if the public perception doesn't match the facts, it's not as bad as we all might assume. Hunting and Trapping come in fourth with a score of 16 behind Chemical and Industrial Pollution (31), Human Overpopulation Resulting in Land Lost to Commercial Housing Development (29) and Loss of Wild Land to Natural Resources Industries (18).

Apparently, the public doesn't know that no species has been made extinct by sport hunting in the U.S. We've got some work to do in this area, and everyone can help. The hunter has been the first to recognize the dangers of overhunting and has been in the forefront for reduced bags and shortened or closed seasons.

But the real information is Table 45, page 106, under the heading "Approve or Oppose Hunting—General Public," asking this question: "Of the following reasons for hunting, which do you approve or oppose?"



Art from Florida Hunter Education Handbook

		Approve	Disapprove
A.	Traditional native hunting such as done by some Indians and Eskimos	82	15
B.	Hunting game mammals such as deer for recreation and sport	37	62
C.	Hunting waterfowl such as ducks for recreation and sport	40	59
D.	Hunting for meat	85	14
E.	Hunting for recreation and meat	64	34
F.	Hunting for a trophy, such as horns or a mounted animal	18	80

Now that seems pretty clear. If you eat it, the public, by a considerable majority, says go ahead and hunt it. But, if you don't eat it, don't shoot it.

But that's where we get a bit confused. All the duck and deer hunters we know hunt for recreation, sport AND meat, and the chances are, most deer hunters really want a good-sized rack on their deer, too.

Doesn't mean they waste the meat, though. Not at all. They eat it and give some away to good friends.

So, maybe that last research category needs some attention from sportsmen. Of course, every big-game hunter prefers to take a respectably sized animal, one that will enhance his den with a handsome mount, but he doesn't waste the meat. Of course not.

Could this study mean that the public thinks that the trophy end of the animal is all the hunter keeps? If that's so, let's all go to work, and let's keep hammering home that sportsmen and their families eat what they shoot.

We don't waste game. How many times have we seen hunters persist in a search for downed game rather than take the easy way out and try to kill another of the same. No, true hunters keep looking and, once they find what they're looking for, they know what a treat the table will have for them.

We don't have to lie; we have to tell the truth. We eat what we shoot and have low regard for hunters who waste. There aren't many of them. Let's keep it that way and let the public know. They're on our side on this question. ☐

String of pit bass.

John Smith

Some braggin' size bass are taken from

The PITS

Ask any experienced Florida bass fisherman where the best bass fishing in the state is, and you'll probably hear names such as Lake Tohopekaliga, Rodman Reservoir, and Lake Jackson. But I'm convinced that our hottest bass fishing is in a much less publicized area.

Our friend, Steve Garcia, had related some tall tales about nice bass caught in phosphate pits near his home town of Lakeland. The pits are the result of mining for phosphate, a principal ingredient in fertilizer and some detergents. This is Florida's third largest industry, exceeded only by tourism and agriculture. The phosphate ore is extracted from the earth at depths of up to 40 feet. It's then mixed with water to form a mud-like substance which is pumped through a pipeline to the processing plants where the phosphate is separated from sand and clay. Because of the area's high water table, water seeps into the pits during excavation but is kept under control by constant pumping. Once digging is completed, however, the holes soon fill with water. Within a year, because of underground connections with other sources, and aided no doubt by humans, new ponds support a growing fish population. Within a very few years there are some braggin' bass to be taken.

After numerous invitations from Garcia to join him in some pit fishing, we finally arranged to drive down from our home in Ocala one weekend late in May.

As the first hint of the coming day streaked the sky to the east, we launched our john boat on one of the pits. A bass struck in the midst of a school of baitfish along the shallows as we started the electric trolling motor and began casting plastic worms toward the shoreline.

Cattails grow all along the perimeter of these pits

By John and William Smith

and the banks may drop off steeply. In some places the depth is 20 feet only a few paces from shore. Needless to say, you can leave your waders at home.

We had fished for only 10 minutes when John connected. Within moments, he boated a spry 2½-pounder. It looked promising and we continued our casting with a strong sense of anticipation. We weren't disappointed.

"Got one!" Steve soon yelled. And indeed he did. I turned to see his rod bowed heavily. The calm surface of the water was savagely disrupted as the large bass, incensed by the hook, catapulted into the air shaking his head furiously.

"Hang on, buddy!" I yelled, grabbing the net. The bass headed for the depths, peeling off line as he did. Garcia kept up firm pressure, however, and the fish soon began to tire. As he finally floundered within reach, I slipped the net under the gallant 5-pounder. I was beginning to be impressed.

I missed a solid strike and then boated a hard-fighting 3-pounder. No doubt about it—the action had definitely begun!

The next 45 minutes looked like a fishing commercial for some tackle dealer in which the success of the angler is predetermined—except there was nothing contrived here. It was simply good ol' Florida bass fishing at its finest. We caught eight good fish and lost countless others before the pace slowed.

"Is it always this good?" I asked Garcia with a touch of awe.

"No, it varies. Sometimes it's better. Last month another guy and I caught 25 within an hour and a half. Of course, we released most of them. I know of one 11-pounder that was caught here a few years back, but that's unusually big."

Suddenly his attention was diverted.

"Fish hulk!" he shouted. Something huge had caused one of the cattails to jerk violently. Skillfully casting his plastic worm right on the mark, he tried to entice this "phantom of the deep," but to no avail.

"I have a friend who does quite well by watching these cattails and casting when they're bumped," he explained, "but I guess that one didn't want to cooperate."

Although we continued to pick up an occasional bass, the fishing had slowed as we approached the late morning hours. We decided to anchor off of a rocky point and work our plastic worms slowly along the bottom in 18 feet of water. During the next hour we raised a half dozen fish, but the heat of midday had really begun to build.

"Let's take a break," I suggested.

I was so hot I felt like jumping in, but the big water moccasin and 'gator I had seen earlier discouraged that notion. I was just beginning to realize there were no trees around these pits—for miles! We were in the middle of a large open area and I half expected to see a gila monster crawl along the bank at any time. Visions of an air-conditioned McDonalds or Burger King were dancing in my head when the sound of my brother's voice snapped me back to reality.

John Smith

"If we're going to find any shade, we'll have to go back to the truck," he declared.

The thought of firing up our Evinrude and creating that artificial breeze to go anywhere was immediately and overwhelmingly inviting.

"I'm ready," I responded. We both looked like we were wilting on the vine.

We didn't bother to consult Garcia. He has a "never say die" attitude when it comes to fishing. I've seen him fish through a thunderstorm. He's one of the few who can outlast me. When you're ready to stop, you don't ask Garcia, you just drag him in. He may kick and holler some, but will eventually desist.

Back at the launch site, John stretched out on the ground for a siesta underneath the truck.

"It's cooler under here," he said. "Come on."

I surveyed the accommodations. With cow chips scattered over the ground (the open land around these pits is used for cattle grazing), it wasn't the Holiday Inn, but anything was better than the heat, so—muttering something about "the pits"—I crawled under. I mean, if I were to make a list of things I wanted to do in life, lying on cow chips underneath a truck next to a phosphate pit would not rank in the top five.

While John and I lay in state, Steve took his rod and started fishing from the bank and, by golly, if he didn't come back with a 3-pounder 45 minutes later.

"Caught him right in the weeds," he confided.

At that point, though, he could have had "Jaws" on his stringer and John and I wouldn't have budged. The sun was tortuous. Even Garcia finally surrendered and crawled under the truck. For the next hour we left the pit to the various products of nature that were better equipped to survive the elements.

As the sun inevitably began its descent, we slowly emerged from our refuge and surveyed the situation. We were all beginning to feel terminally strange lying underneath a truck in the middle of a cow pasture.

"I think it's time to get back at it," John announced, as he took a chug on our water bottle.

With that, we clambered back in the boat and resumed working the shoreline. The bass were soon hitting again and we picked up several nice fish but missed on a number of other solid strikes. Unless you have a great deal of experience fishing plastic worms, you're always going to lose some bass because of timing problems when setting the hook. But practice soon provides the knack.

A breeze began to blow and the fishing slowed, so Garcia suggested we try a small cove ten minutes away. Unfortunately, the wind was even stronger there and, although it offered welcome relief from the heat, made it difficult to hold the boat in proper position for casting. However, this spot had produced some good bass for Garcia in the past and we were determined to give it a try. It's good that we did, too, for on John's first cast he connected with a 5-pounder. Subsequent attempts proved fruitless and, because it was now growing late in the day, we decided to head in.

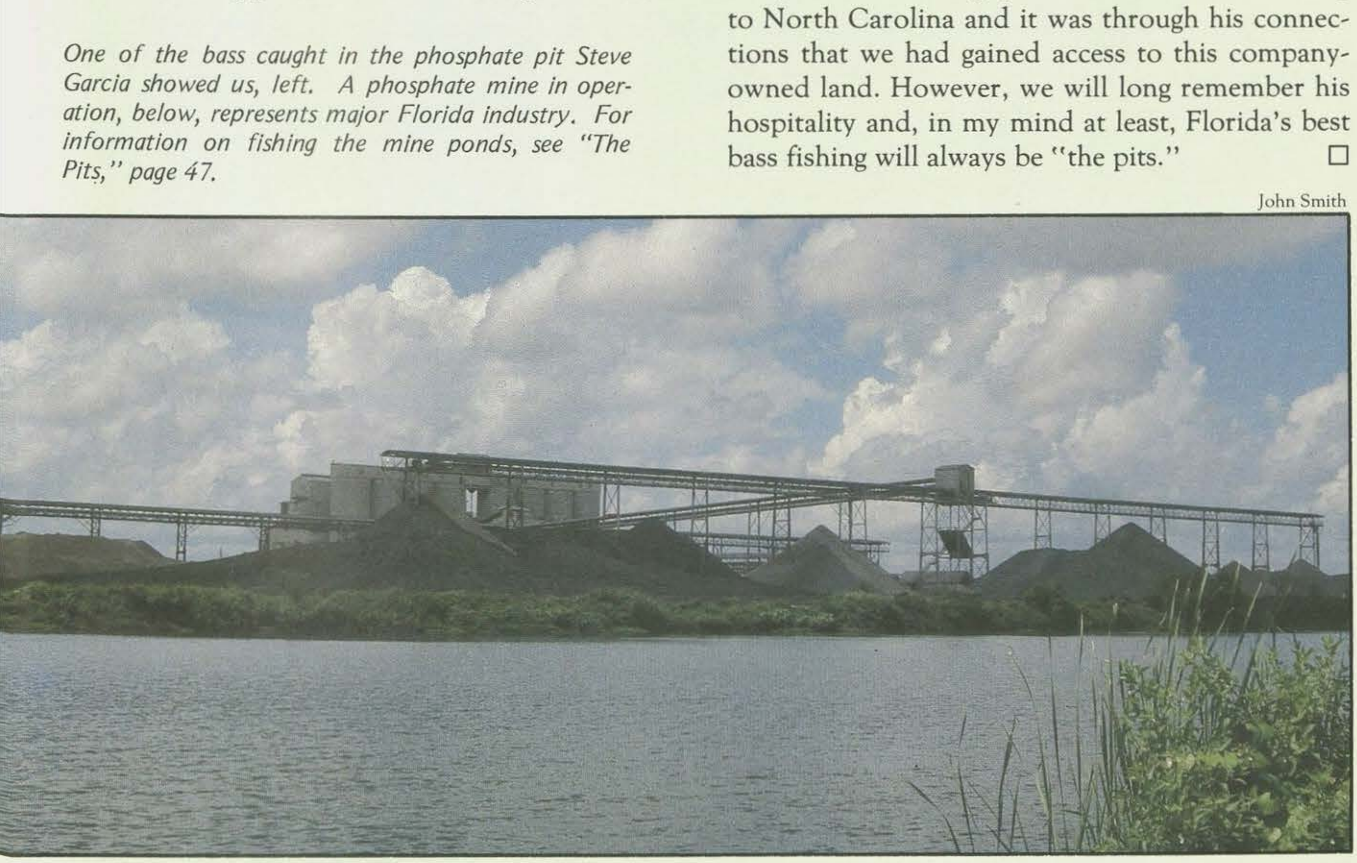
We had boated more than 60 pounds of bass, most of which were released, and had had a lot of action from the numerous fish that ultimately got away. Biggest-fish-of-the-day honors went to Garcia for a 6½-pounder.

Because most of the property where these phosphate pits are found is privately owned, access is restricted; however, there are opportunities. Some of the phosphate lands have been developed into public recreation areas. Contacts with phosphate industry personnel may give you access to others. Also, some landowners lease fishing rights to groups and individuals. It should be pointed out that some of these pits are much more productive than others. One thing is sure though—the fishing may well be worth the effort expended in making arrangements.

I don't know if we'll get the chance to return to this particular fishing spot because Garcia is moving to North Carolina and it was through his connections that we had gained access to this company-owned land. However, we will long remember his hospitality and, in my mind at least, Florida's best bass fishing will always be "the pits." ☐

One of the bass caught in the phosphate pit Steve Garcia showed us, left. A phosphate mine in operation, below, represents major Florida industry. For information on fishing the mine ponds, see "The Pits," page 47.

John Smith



A river at the crossroads, the Apalachicola

The Apalachicola River is Florida's largest river in terms of water discharge, floodplain and drainage basin area. The river and its associated creeks, marshes, tributaries and distributaries contain about a quarter million acres of wetlands and drain about 2,400 square miles of swamps and uplands in Florida. Because of the river's size, strategic location and unique natural characteristics, it is one of our most valuable natural resources. For these same reasons, it is one of Florida's most controversial resources. Over the past 25 years, the river has been a hotbed of political disputes ranging from small town bickering to interstate conflicts with rumblings reaching all the way to Washington, DC.

The river forms a prominent natural boundary for Gadsden, Jackson, Liberty, Calhoun, Franklin and Gulf counties, and historically has contributed to the economy of these counties. In more recent times, the counties along the northern reaches use the river primarily for transportation, while the coastal counties depend more on the biological resources of timber and seafood.

On the interstate level, the river serves as a transportation link between Florida, Georgia and Alabama, connecting these states with the Gulf and the Intracoastal Waterway.

Apalachicola Bay, which forms the river's mouth, is the source of a diverse and rich seafood industry and is dependent upon an unpolluted and undisturbed natural system. This intricate system consists of the river's cyclic flooding over a vast floodplain and the downstream export of organic matter derived from leaf and twig litter within the 100-mile forested floodplain. Buffering the northern perimeter of Apalachicola Bay is a broad band of marsh and shallow water wetlands; the southern rim of the bay consists of a series of barrier islands that protect the bay from the Gulf of Mexico.

Annual flushes of nutrient-laden fresh water and organic materials flow into the estuarine environment of the bay where it fuels the reproduction and growth processes of oysters, shrimp, blue crabs and fin fishes. The brackish waters of the bay directly account for more than 80 percent of Florida's oyster harvest and a large percentage of Florida's Gulf Coast blue crab, shrimp and commercial fish populations. The river and bay also provide excellent opportunities for fresh- and saltwater sport fishing,

Neal Eichholz

The big river winds through 100 miles of forested floodplain, a portion of which is shown in photo at left. The cyclic flooding and drying of the river swamp, above, is an important cog in an intricate natural system.

By Neal Eichholz

Biologist, Office of Environmental Services

The Apalachicola

hunting, boating, camping and other outdoor-oriented recreation. These benefits cost Floridians nothing.

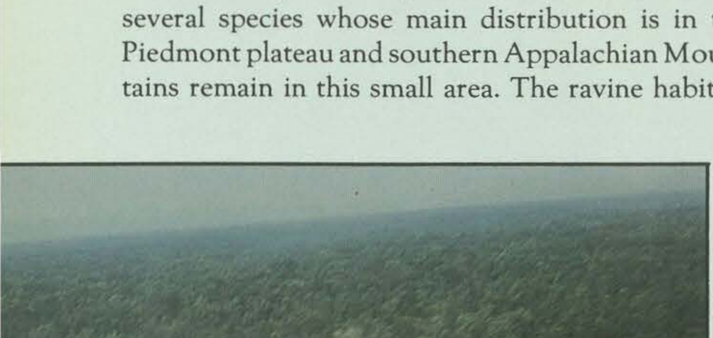
Within the floodplain, some timber interests are disrupting the natural drainage patterns. Sloughs are being blocked with logging debris and by the fill material used in the construction of hauling roads. In addition to the alteration of drainage patterns, the removal of the hardwood forests by clearcutting is extremely detrimental to wildlife inhabiting the area. The hardwood forests bordering the river have long been noted for their rich assortment of plants and wildlife, and are some of Florida's most valuable remaining habitats. Bottomland hardwoods throughout the Southeast have been disappearing at an alarming rate because of conversion to soybean fields, pine plantations, pasturelands and industrial developments. Adjacent to and within the Apalachicola River floodplain are large acreages of forested lands that are being converted to these same uses. Practices such as these are ongoing and are increasing as the vast majority of the river's floodplain is owned by private interests.

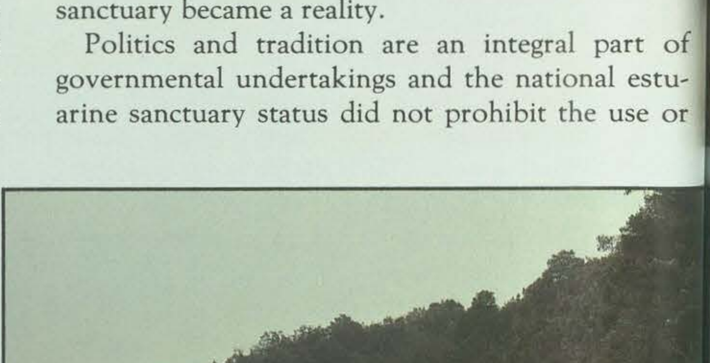
The hardwoods along the bluffs and ravines of the eastern portions of the upper river are excellent habitat for a large number of species of plants and animals native to Florida, including some that occur only in these limited environments. Geographically, these bluffs and ravines are unique in Florida; the cool, moist environments have one of the highest diversity of plants and animals of any comparably sized area in Florida. Numerous endangered and threatened species of plants are found there and several species whose main distribution is in the Piedmont plateau and southern Appalachian Mountains remain in this small area. The ravine habitats are refuges for plants more adapted to a northern climate that covered the area during the ice ages. The glaciers retreated, but this small pocket of unusual plants and animals has persisted for thousands of years in the restricted cool and moist environment.

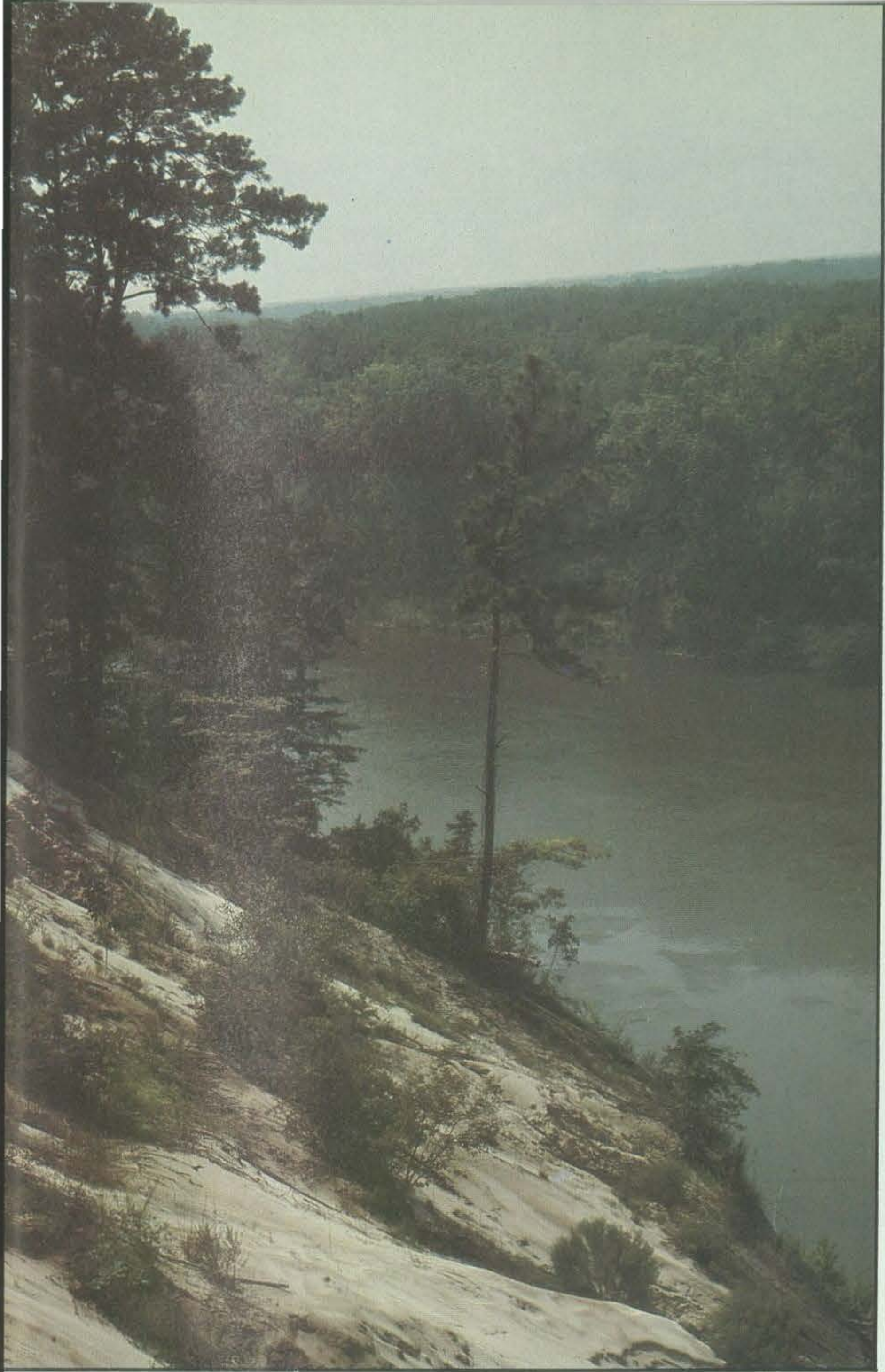
The importance of this natural system to the state was recognized by scientists and politicians alike when, in 1974, about 30,000 acres along the lower Apalachicola River were purchased by the state under Florida's Environmentally Endangered Lands program. The land was bought to provide protection against development and deterioration of the productive estuary and bay environment. Large-scale unauthorized dredging and filling of the adjacent swamplands had previously been done by private interests to establish cattle and agricultural areas. In September 1979, the state's interest was bolstered further by the designation of about 193,000 acres of the bay and lower river as a national estuarine sanctuary. This sanctuary status provides federal grants to the state for acquisition, development and operation of estuarine environments to be set aside as natural field laboratories. These areas are to be used primarily for long-term scientific and educational purposes.

In the case of Apalachicola Bay and River, the sanctuary proposal was complicated by the fact that the Intracoastal Waterway and the ACF(Apalachicola-Chattahoochee-Flint) navigation channel was to be included within the sanctuary boundaries. After some initial consultation between the U.S. Army Corps of Engineers and state and federal agencies over potential impacts of maintaining these waterways, the designation as a national estuarine sanctuary became a reality.

Politics and tradition are an integral part of governmental undertakings and the national estuarine sanctuary status did not prohibit the use or







outright ownership by the state of floodplain lands is the only certain way to ensure that Florida will continue to have this invaluable resource. Governor Graham's "SAVE THE RIVERS" program has been organized with this goal in mind.

Below, l. to r., Bare sand is fill dredged from river bottom in straightening a curve to aid navigation. Sand banks along shore are result of channel dredging. Soybeans grow in a floodplain field north of Bristol. Alum Bluff, above, is landmark on the Apalachicola River.

Photos by Neal Eichholz

maintenance of the river as an interstate transportation route. Dredging and structural modification of the river has been routine procedure for the Corps in its efforts to manage the river for navigation interests. However, dredging, spoil deposition, dike construction, channel realignment, snag and rock removal have a high potential for long-term degradation of the natural character of the river. Although the Corps was issued a five-year permit to dredge the river by the Department of Environmental Regulation (DER), an interagency study group including the Game and Fresh Water Fish Commission identified a number of potential adverse impacts related to maintaining the navigation channel. Due to these potential problems, the Corps was required, as a

William Greer

condition of the permit, to provide answers to complex biological and physical questions concerning the impacts of maintenance activities on natural characteristics of the river. Entrenchment of the river, loss of fish habitat, lowered water quality and the effects on the Apalachicola Bay estuarine system were some of the unknown factors. At the present time, several long-term studies are under way with the hope of finding some answers to these important questions.

In addition to continuous Corps proposals for alteration of the river, there have been numerous projects proposed by private industry. One recent proposal called for the removal of 200,000 cubic yards annually of sand and gravel from the river bed; another project involved the building of a large coal-fired power plant along the river which, in addition to impacting air and water quality, could have necessitated an increase in barge traffic for delivering coal to the plant. A related proposal called for an increase in coal-carrying barges on the river from the Gulf to the Sneads bargeport where the coal was to be unloaded for overland transport to Palatka. A power plant and several small industries are presently located along the river although none are singularly significant as contributors of pollution or structural impacts. The cumulative effects of these activities, especially in light of the increased barge traffic and maintenance operations, are potentially damaging.

State policies have been recently reshaped with more emphasis on nonstructural methods of dealing with water management and waterway transportation problems. Governor Bob Graham has initiated a new "Save Our Rivers" program which calls for an excise tax on real estate transactions designed to raise money for the purchase of important floodplain acreages throughout the state. This program includes a water management lands trust fund for acquiring certain lands necessary for water management, water

supply and the conservation and protection of water resources. At the present time, however, very few floodplain acreages have been purchased as the wheels of bureaucracy tend to move at a very slow rate. Purchase and outright ownership by the state of these floodplain properties will be the only certain way to ensure that Florida will continue to have this invaluable resource. The sooner these lands are purchased, the better. In fact, in all likelihood, if these lands are not purchased, our children and grandchildren will never have the opportunity to see the rich wildlife and vegetation of bottomland hardwoods of the Apalachicola River. Also at stake are the oysters, shrimp, crabs and fish. Imagine, if you can, Apalachicola without oysters. ☐

Neal Eichholz

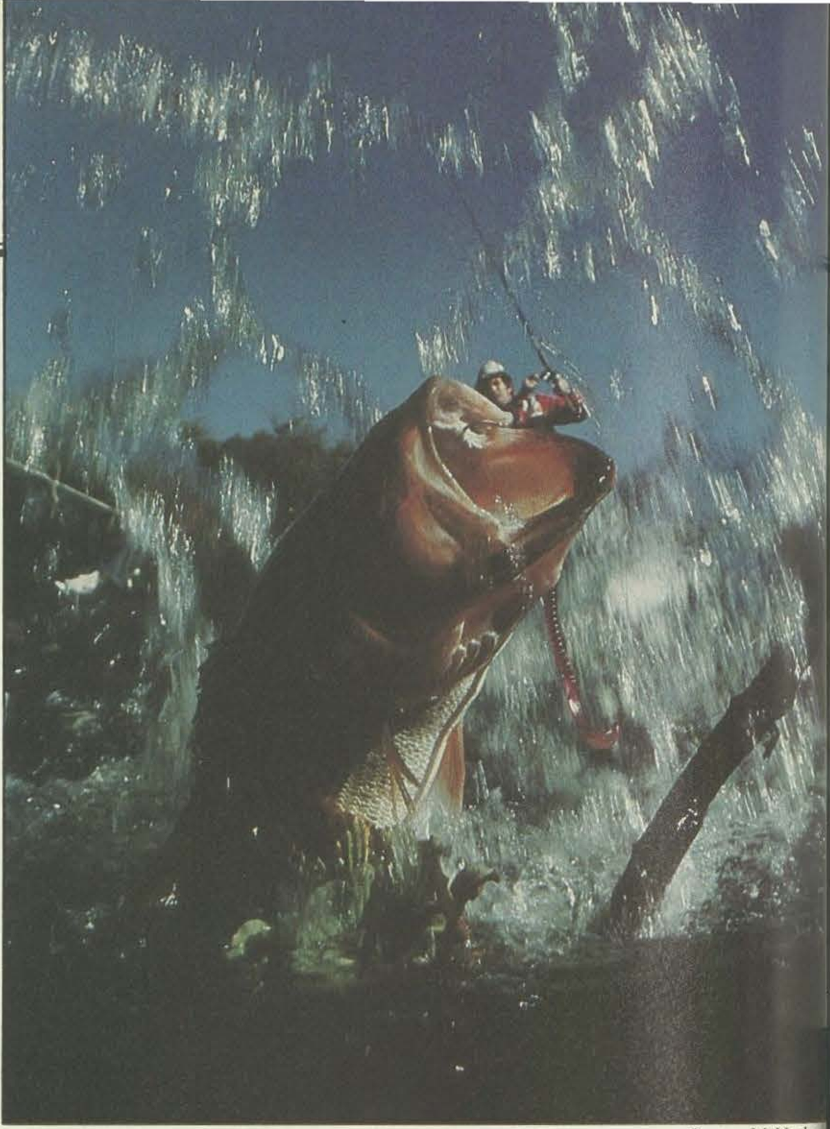
William Greer

The Apalachicola

The river enters the Gulf at Apalachicola, above. Rising water flows over forested floodplain, right above. The splash is from beaver alarmed by intrusion of photographer. The availability of nutrients to sustain important seafood industry of the Apalachicola area depends on the natural up and down cycle of river flow.

STORY BEHIND THE COVERS

Burton McNeely



Burton McNeely

Rushing from a photo assignment stalking bighorn sheep in Wyoming to noiselessly gliding underwater alongside a school of dolphins in the Bahamas are all matters of course for Burton McNeely of Land O' Lakes. The central Florida photographer is as itinerant as his clients demand. Long ago he developed a reputation for producing quality outdoor pictures on order. He's already captured on film an amazing variety of creatures in their natural habitat, mostly on assignment from magazines, public relations firms and advertising departments. There is also an increasing demand for his work as decorative pieces for homes and offices.

Some years ago, McNeely developed an over-under camera system which has enabled him to make some unusual shots in clear waters such as encountered in many of the state's spring-fed streams. The camera is housed in a custom-designed case that can be used either completely underwater or, equipped with split optics, can be used to capture action with half a frame above and half under the water's surface. The basic camera for this system is an electric Hasselblad. One of the best examples of its unique adaptation to demands for the unusual is a photograph McNeely shot for an article on the formation of the Florida Keys. It showed the hard coral rock underwater and a small sand island above.

McNeely usually uses a 35 mm Nikon camera with motor drive for topside work. A variety of lenses from extreme wide angle to telephoto are part of his outdoor photography kit.

For strictly underwater work, he uses the Nikonos III camera with a 15 mm lens. He says with this equipment, he can work in most lakes and rivers with as little as five feet of visibility.

Douglas Hannon of Odessa has worked with McNeely to produce some notable underwater shots

A naturalist-photographer with a knowledge of his subjects and the skill to picture them in a unique way.

that have appeared on covers of outdoor magazines. A tranquilizer Hannon developed slows fish down to a state approaching suspended animation, McNeely says, doing a great deal toward holding the live fish under control while it is being positioned for photography.

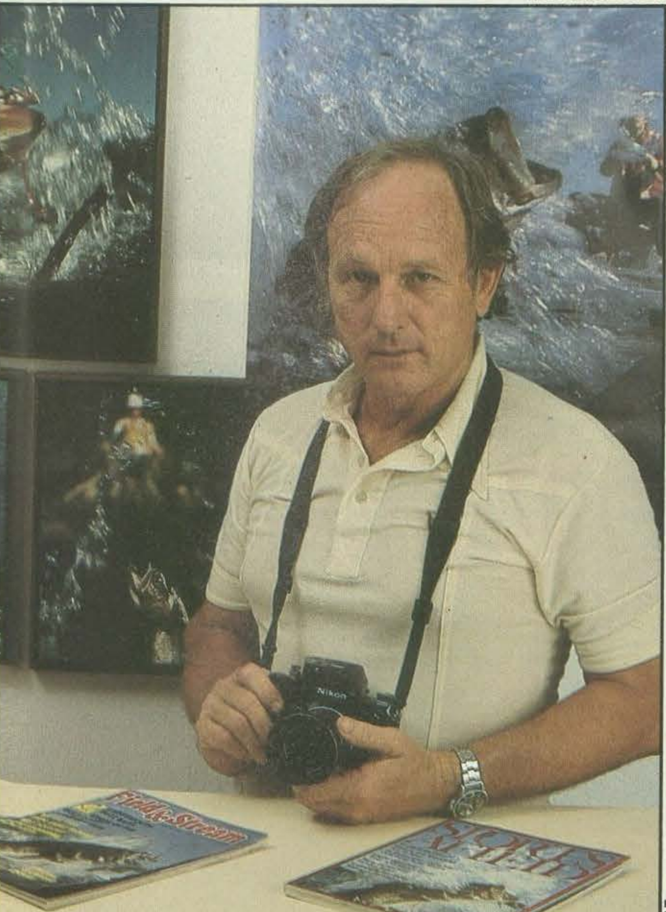
McNeely learned the basics of the photography business on the G.I. bill following his release from the Marine Corps. From his service work in photography, he continued to expand his dream of making a living photographing things in the outdoors and soon he was getting assignments from the likes of *Life, The Saturday Evening Post* and *National Geographic.* With the demise of *Life* and *The Post,* he turned to advertising agencies and public relations firms with his photographic expertise to earn his grits-and-gravy.

"There is growing popularity of outdoor photographs as decor items and I want to help supply that demand, not only to professional decorators but also to gift shops and other outlets which cater to fishermen and other sportsmen," he says.

To be a successful outdoor photographer, McNeely first had to become a naturalist. "The most important ingredients in photography are professional knowledge and attitude. You must have a knowledge of the subject and the patience to make it happen. Good equipment is necessary, but that doesn't make the picture. It's enthusiasm and hard work that put it all together," McNeely suggests.

This energetic photographer has the know-how to capture the essence of the Florida outdoor scene on film. He's building up a legacy in his photographic records that will be admired for generations to come. That realization, perhaps, is what makes him smile as he picks up his camera to fulfill another assignemnt in the out-of-doors. ☐

W. Horace Carter



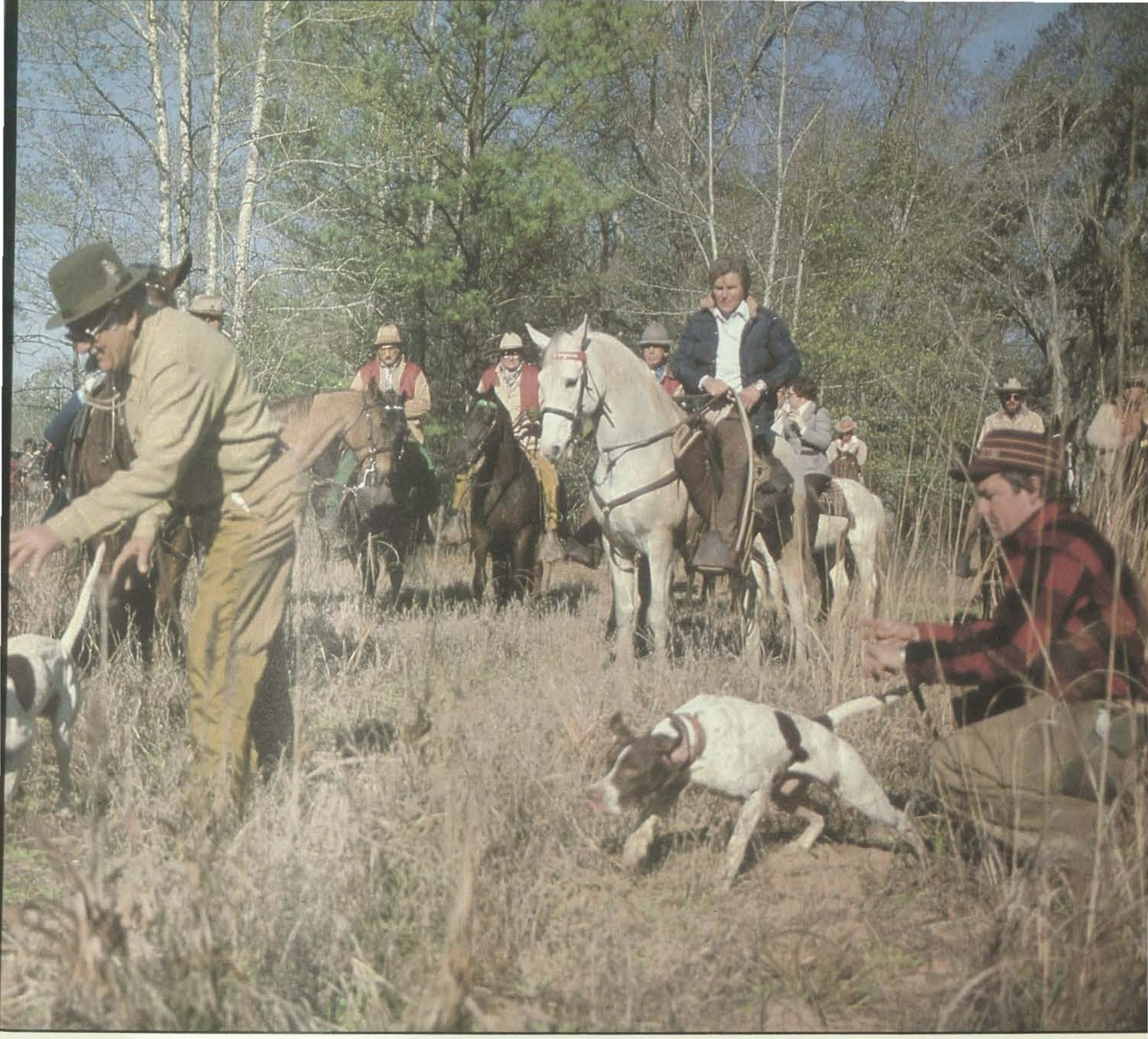
By W. Horace Carter

What better expression of the spirit of Florida bass fishing than the spectacular photo on the opposite page. Burton McNeely, below, with some of his work on display. Both front and back cover photos of this issue are McNeely's.

The National Shooting Dog Championship

AN AMATEUR FREE-FOR-ALL

By Morrie Naggiar



Off and running, dogs apply themselves with enthusiasm, lower left. The "gallery" follows the hunt on horseback and mule-drawn buggy, upper left. Ed Breaux, left, with Cedar's Grove Dot and Gene Brown releasing Arrival at start of qualifying heat. Rex Smith, on horse left, and Ray Myrick, on white horse, check proceedings.

To someone new to the field trial business, the title "amateur free-for-all" could be the source of no little confusion. Thanks to the efforts of our host, Jimmie Fuller, chief huntsman of Cherokee Plantation, photographer Bill Greer and I were set straight on that matter right from the start. We'd been invited to watch this year's pointing dog championship on the northern Leon County plantation.

"The free-for-all business," Fuller explained, "simply means any registered pointer, setter, or other pointing dog may be entered. Amateur indi-

Photography by William Greer

cates that the dogs are to be handled only by nonprofessionals during the trial."

This year's event at Cherokee was the 33rd annual running of the National. The Association had its beginning in 1934 when a group of southeastern Alabama sportsmen organized a shooting dog club to foster their mutual interest in pointing dogs. The idea took hold and the group prospered. In 1950, the name National Shooting Dog Championship Association was adopted. It's been that ever since.

In brief, the field trial went something like this. For the first two days, two dogs at a time were turned out to hunt for a period of 45 minutes. The number of coveys of bobwhite quail located plus the style, pace, drive, bird sense, and response to handling were among the qualities the judges were watching for in the dogs.

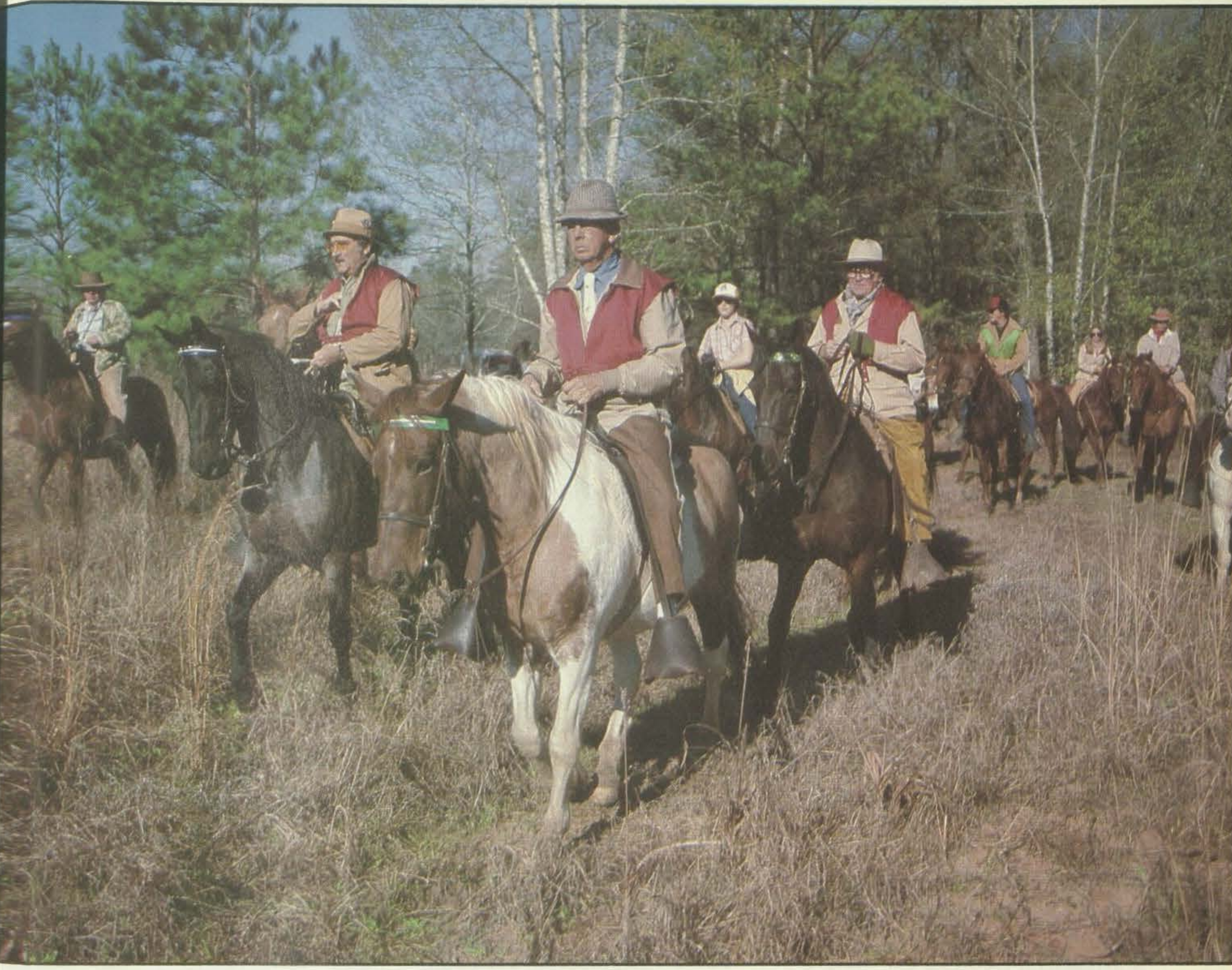
When a dog points, the handler moves in, flushes the birds and fires a blank shell (no birds are shot during the trials). How the dogs conduct themselves once they've located birds is of critical concern for they must remain steady when the birds are flushed and the shot fired if they are to score well.

After two days of qualifying heats, the field was narrowed down to eight dogs to be hunted on the third day. The final heats lasted for 90 minutes each.

In describing the performance of Norias Gambler, this year's winner, George Harden, one of the judges and a dog owner and handler for a good part of his 76 years, wrote "In the finals Gambler duplicated his previous ground race, had a strong finish and was taken up on his ninth find. All were with the same high style and accurate location as displayed in his qualifying race."

Gambler is owned by C. L. Fitzgerald and handled by Fane Dykes. Runner-up was Mateuse, owned by David O'Conner and handled by Gene D. Brown. Arrival, owned by Eddie Rayl and handled by Ray Myrick, was named best dog in the qualifying series.

Edgar Kirkland, Association secretary, pointed out that one of the objectives of the NSDCA is to show how a shooting dog should work in the field. As far as I am concerned, they accomplished that in spades. It was an impressive demonstration. ☐



Clockwise from lower left: The pause that refreshes, Fane Dykes, handler, cools off C.L. Fitzgerald's Norias Gambler, dog that captured this year's championship. Bobwhite quail, object of all the attention. Judges in red vests, from left, Bob Lamb, Jimmy Fuller, George Harden Jr., keep close eye on fine points of dog work. Gambler, below, shows championship style.

Rick Long

PLANTIN

The little electric trolling motor hummed softly as it pushed the boat through a bulrush thicket standing in the shallows at the margin of the lake. From the slowly moving craft, two anglers cast plastic worms into fishy-looking pockets in the vegetation. Before long, one of the fishermen felt the familar *tap tap* as a bass picked up the lure. He paused to let the fish get the bait into the proper position then, with a swift upward sweep of the rod, he drove the barb home. There was a mad frenzy of spray-flailing action and the battle was on.

This scene is repeated hundreds of times each day in Florida lakes, whether it be casting a worm into bulrush, a spinner bait over peppergrass, "flippin" a lure into water lilies, or dropping a tantalizing live bait into a hole in a stand of maidencane for lurking bream or crappie.

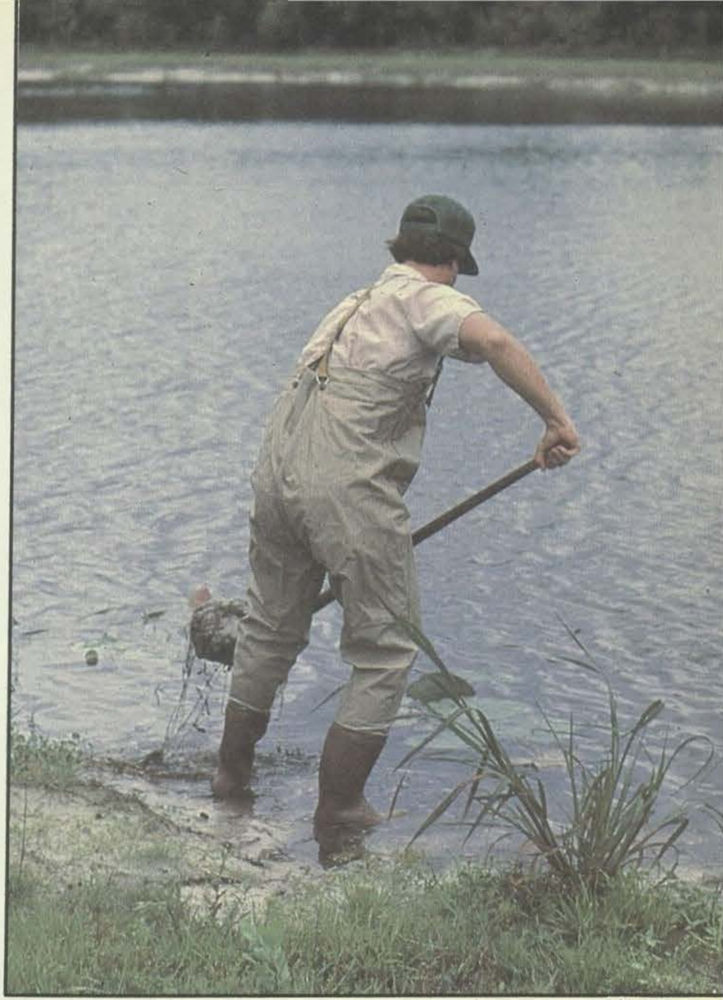
Whatever the fishing method or target species, one thing is for certain—aquatic vegetation brings both fish and fishermen together. In hunting or fishing, the first step is to locate your quarry. This is done by identifying and searching out its preferred habitat. With Florida's freshwater sport fish, including bass, pickerel, and panfish, all or part of their life cycles are associated with aquatic vegetation. It can be said that aquatic plants are natural fish attractors. Plants are highly important in any lake or stream environment, for they provide necessities of life such as cover, structure, spawning sites, and food.

Let's take a brief look at each as it applies to freshwater game fish.

Cover is needed by small fish to escape attack by such predators as bass, pickerel, and gar.

Mike Godwin

James C. Greene



Rick Long

For FISH

Rick Long

Structure is used by most adult sport fish. Structure is defined as anything that breaks up the uniformity of the lake bottom. Examples are underwater ledges, pier pilings, stumps, logs, sunken trees and, of course, vegetation. Structure not only provides the fish with a retreat from bright sunlight but it also provides for a defined territory which a fish sometimes will defend.

Spawning sites preferred by bass,

By

Frank Morello

Biologist Supervisor, Everglades Region

Clockwise from upper left: water lily stand at Faith Farms, source of stock for replanting; closer look at broad leaves and blossom of white water lily; planting water lily; arrowhead planting at Faith Farms; a closeup of arrowhead plant in bloom.

PLANTING For FISH

bream, crappies and other Centrarchids, and the chain pickerel, are shallow (2-4 feet) vegetated areas.

Food production areas are provided by stands of aquatic plants. Small plant and animal life such as algae, protozoans, worms, insects, and their larvae live on and about aquatic growth and provide food for game fishes.

Fishery biologists conducted a survey on Lake Okeechobee to monitor largemouth bass populations in various aquatic plant communities. The study showed that bass strongly prefer vegetated areas over open water areas and favor certain types of plants. In descending order of preference, the favored plants were bulrush (*Scirpus californicus*), eelgrass (*Vallisneria americana*), peppergrass (*Potamogeton illinoensis*), needlegrass (*Eleocharis* spp.), and white water lily (*Nymphaea odorata*).

In order for a lake to maintain dynamic stands of desirable aquatic plants, two criteria are required—good water quality and fluctuating water levels. Lake bottom exposure during seasonal periods of low water has two effects on a vegetated littoral zone. First, exposure to air and direct sunlight accelerates oxidation, and secondly, it compacts soft, mucky lake bottoms. Improved water and substrate quality, in turn, increase fish spawning success and the production of fish-food organisms. Periodic exposure of lake bottoms also triggers germination of dormant plant seeds, resulting in increased plant growth.

Unfortunately, many Florida lakes have experienced a deterioration of water quality and reduction of aquatic plant habitat as a result of water level stabilization and pollution associated with watershed development in the wake of rapid population growth.

Photos by Rick Long

Since it is impossible to completely eliminate these environmental problems, alternate methods of maintaining desirable aquatic habitat need to be developed. In 1969, Game and Fresh Water Fish Commission fisheries biologists began an experimental management project to reduce, moderate, or reverse symptoms of habitat degradation.

The initial effort involved an extreme drawdown of Lake Tohopekaliga. This resulted in improving the lake bottom, thereby increasing density and diversity of desirable aquatic vegetation. Also, it stimulated production of fish-food organisms and increased the number and poundage of game fish. Later this management program was expanded to include Lake Kissimmee. Implementing an extreme drawdown, however, is a procedure that is not always applicable. For this reason, biologists are looking for other methods of improving aquatic plant communities.

Transplanting desirable aquatics has proved successful in several south Florida lakes including Thonotosassa, Tarpon, Walking Water and Blue Cypress. Transplanting also can be implemented in newly created lakes and ponds devoid of natural vegetation. Faith Farm Lake in Palm Beach County is an example of a lake that was planted shortly after its construction was completed. Within six months, a diversified plant community had become established.

In selecting plant varieties for introduction, several factors must be considered. The plants must be native species normally utilized by fish and wildlife. Exotic varieties should never be introduced because of potential adverse effects as experienced with hydrilla and water hyacinth. The plants should be rooted aquatics that can exist only in the shallower portions of the lake. Plants should be easily controlled and not become so dense they impede fishing or other water activities. Other considerations include aesthetic value and high survival rate after transplanting.

The most promising results have been obtained from the following plants:

Arrowhead (*Sagittaria* spp.). The leaves are lanced-shaped, hence the name arrowhead. In bloom, this plant produces flower stalks with white flowers. Arrowhead is found in swamps, shallow water, and on sandy bottoms of lake margins. The seeds are utilized by waterfowl.

White Waterlily (*Nymphaea odorata*). Also called fragrant waterlily, this plant is distinctive for its sweet-scented, white-on-pink flowers. The leaves lie flat on the water surface and are green on top and purplish on the bottom. It is normally found in ponds and sluggish waterways. Bluegill and redear sunfish are often associated with these plants. The seeds are utilized by waterfowl.

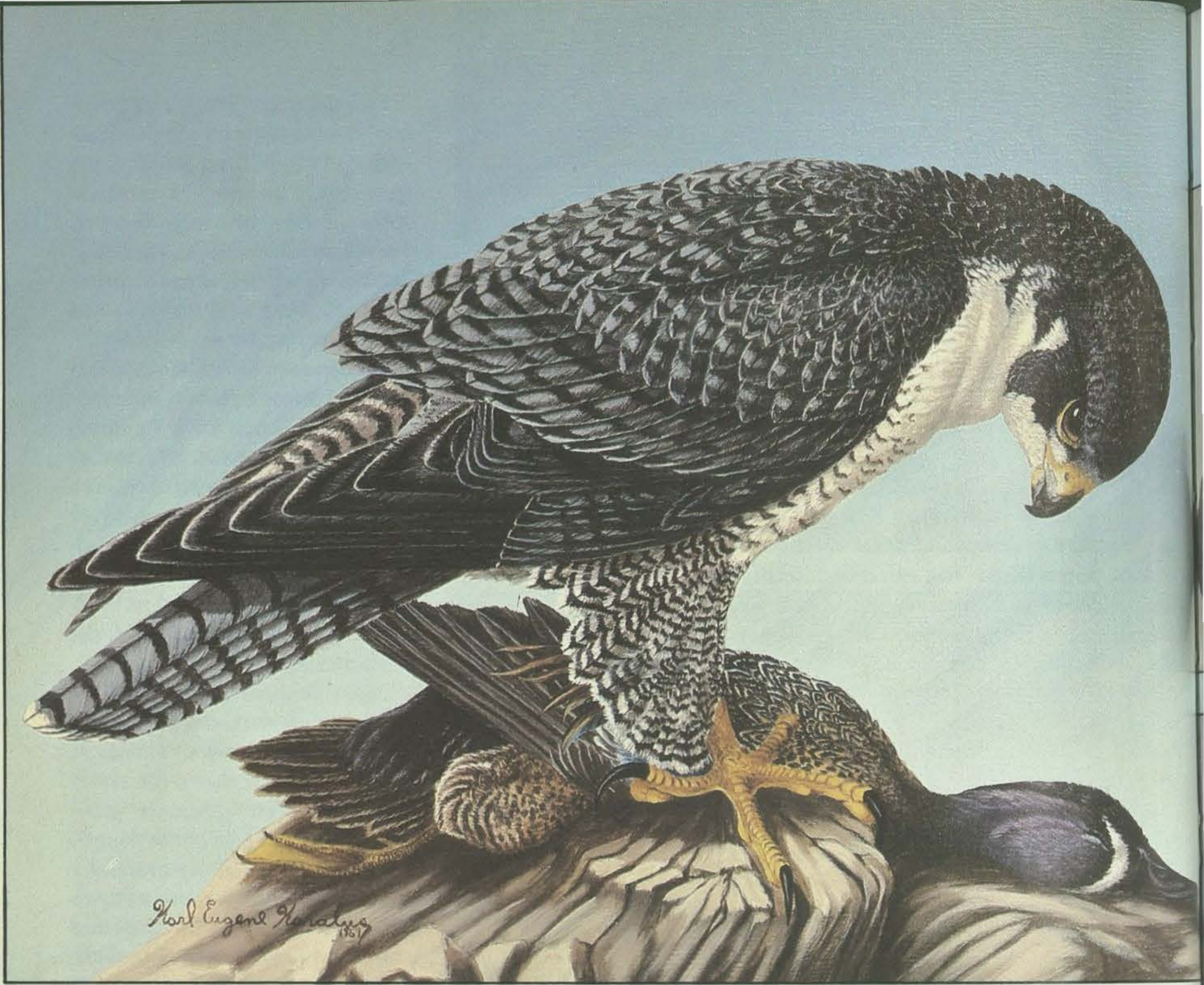
Pickerelweed (*Pontederia lancolata*) has a thick creeping rootstalk with clusters of erect leaves. Each stem has a leaf with a terminal spike of blue or violet flowers. This plant is often seen in drainage ditches, pond shorelines or other shallow waters. Pickerelweed seeds are eaten by waterfowl.

Spatterdock (*Nuphar luteum*) is a rooted aquatic plant that reproduces from seeds or by sending out rootstocks from which new plants grow. The plant produces a yellow flower and is found in ponds, drainage ditches and shallow areas with little or no water flow. This plant is useful to bluegill and redear sunfish, and the seeds are utilized by ducks.

Giant Bulrush (*Scirpus californicus*) has greenish to light brown stems that may grow to extend as much as six feet above the water level. Bunched spikelets grow from the upper end of the roundish stems. Bulrush is normally a plant of shallow water areas (up to four feet in depth) of lakes and ponds and provides excellent habitat for bass and panfish. ☐

Two useful plants for food production and cover are shown on opposite page. Above is spatterdock and below pickerel weed. In the photo below, Rick Long, left, and Billy Higginbotham plant bulrush in Blue Cypress Lake.

GFWFC Photo



Peregrine Falcon

The wildlife art of Karl Karalus

Karalus

It was a roundabout way to get there but Karl E. Karalus has at last found his niche and settled down to doing the thing he likes best—painting wildlife.

Born in Chicago 50 some years ago, his parents early encouraged his interest in the outdoors. Down through the years he's maintained an active interest in hunting, fishing, and trapping. It's a background he has in common with a good many other contemporary wildlife artists.

Karalus served a hitch in the Army as an engineer-draftsman, put in 23 years as a railroad engineer, and 10 years as a taxidermist. But always his pencil and brushes were close at hand. "I've been painting

Raccoon Family

By Comer D. Mullins

wildlife pictures as long as I can remember," he says. His formal art training was obtained under the guidance of a number of private instructors.

In 1972 he moved his family to Englewood and launched his new career as a full-time professional wildlife artist, working from his home studio on

Bobwhite Quail

Screech Owl Family

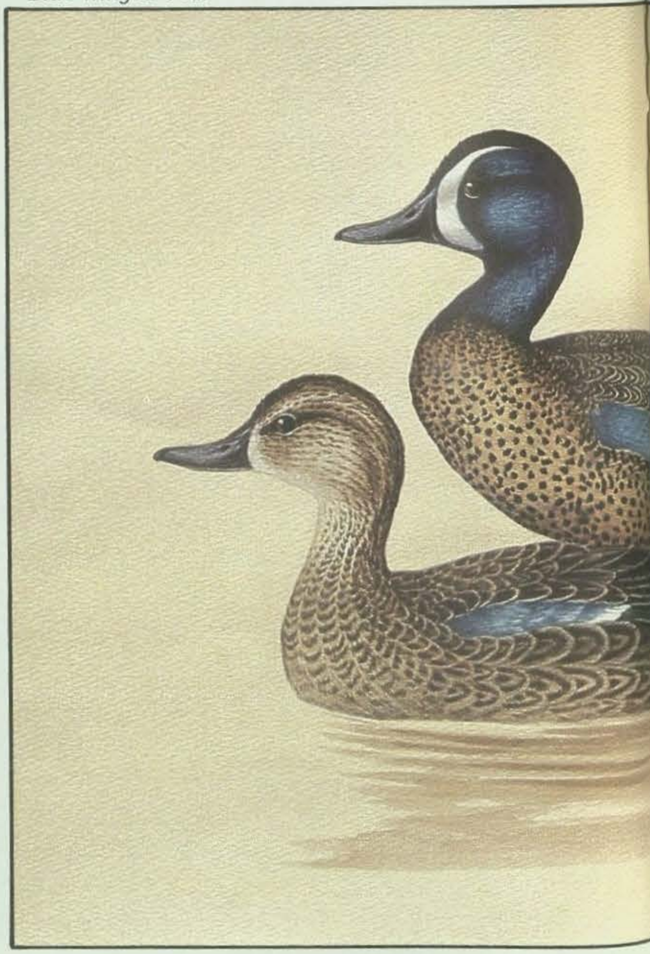
KARL KARALUS

Manasota Key. "It was a good move," Karalus admits. Sales of his work have been so brisk that it is difficult to keep enough paintings on hand for a show.

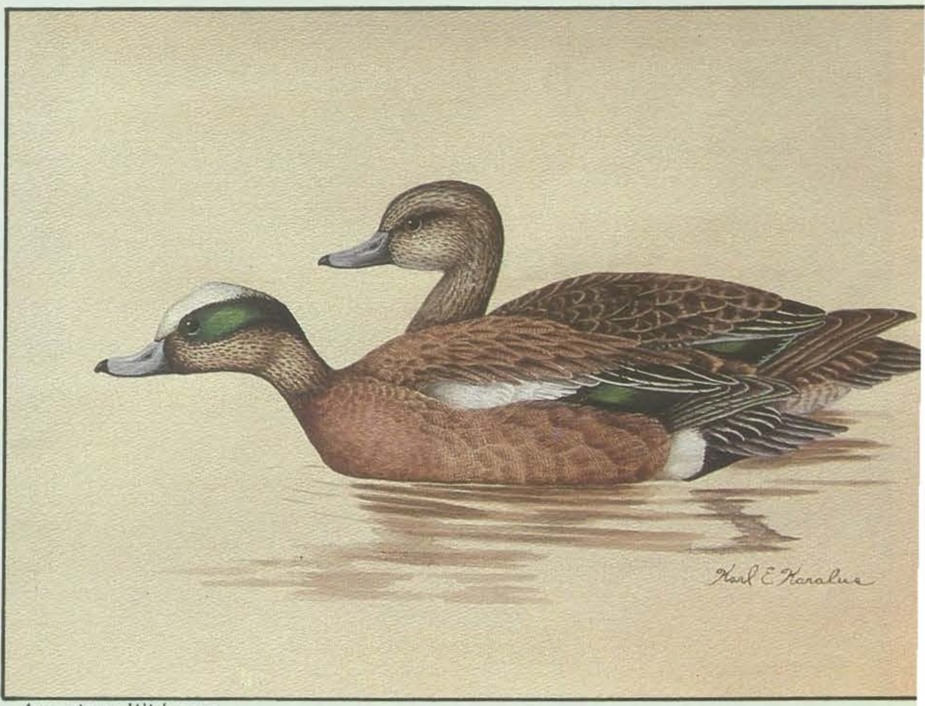
Scientifically correct rendering of the wildlife subjects he paints is a goal for which Karalus strives. His training as a taxidermist and an extensive collection of specimens are invaluable aids in attaining this. He has collected in such far flung places as the Solomon Islands, New Guinea, Labrador and numerous waypoints. There are more than 32,000 specimens in his butterfly collection, with the Dutch East Indies the source of much of this extensive collection.

As for advice to prospective wildlife artists, Karalus says that a person is never really a finished artist in the wildlife field. It is a constant learning process. "If you will put the time and research into it, wildlife art is a good field and you can be successful," he concludes. ☐

Blue-winged Teal



Pintail

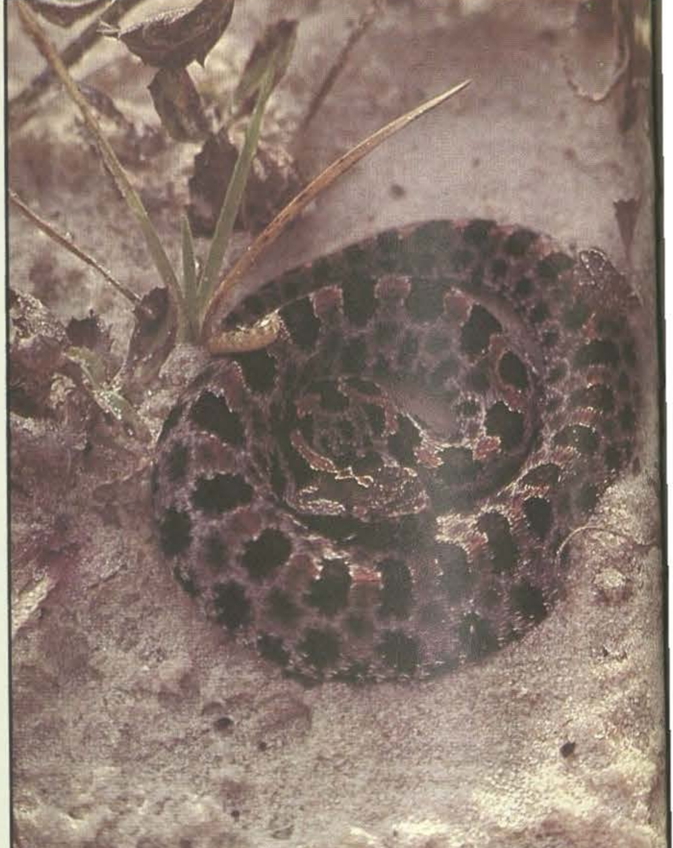


American Widgeon

Under logs and trash piles are favorite hiding places for the secretive little pigmy rattlesnake, better known as

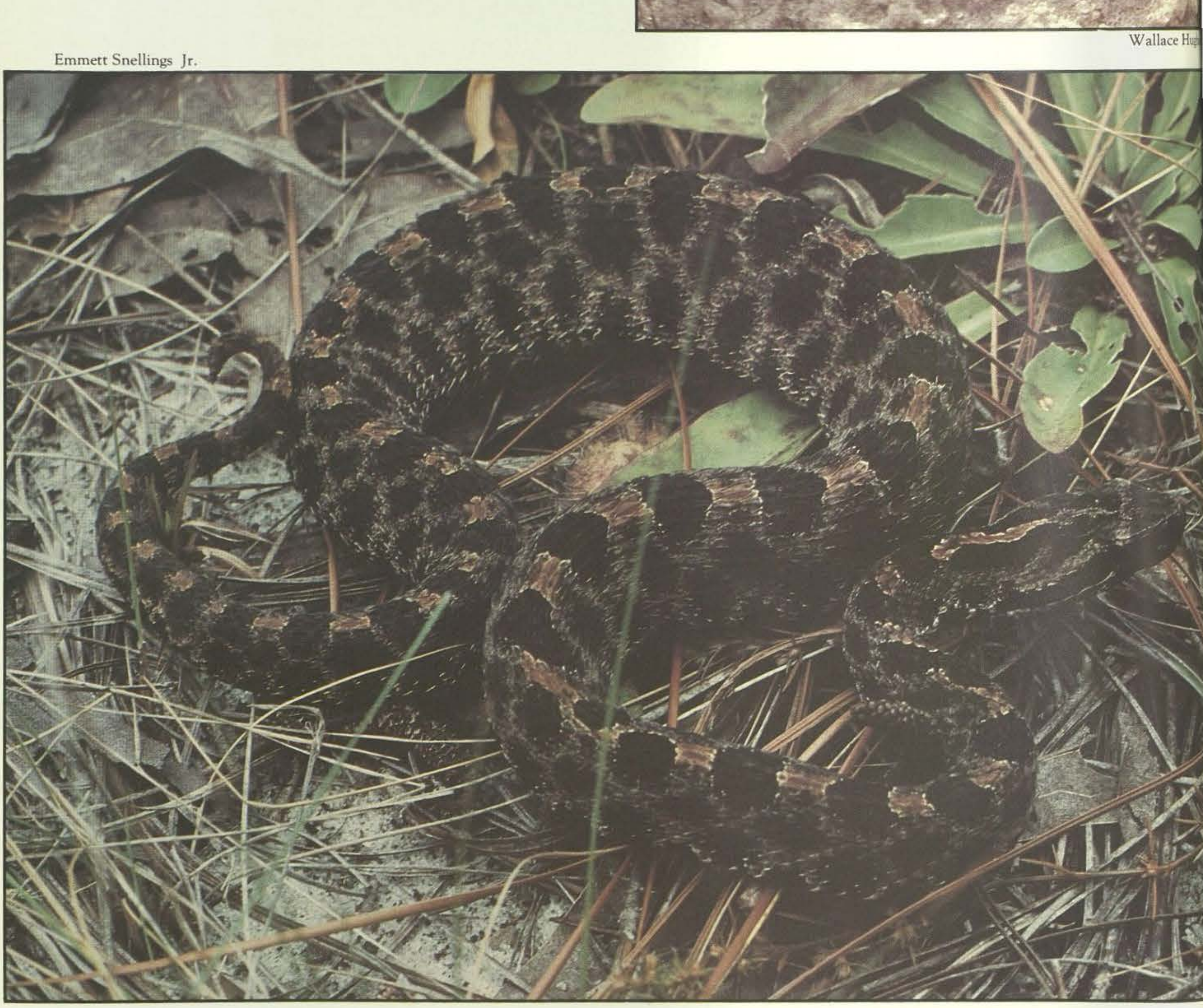
GROUND RATTLER

By Emmett Snellings Jr.



Wallace Hug

Emmett Snellings Jr.



Florida is home to a rather unique little reptile which many of us have seen but few know much about. Due to its secretive nature and seemingly unimportant function in the universe, it's a comparatively unknown creature. Nevertheless, the dusky pigmy rattlesnake (*Sistrurus miliarius barbouri*) shares space with Floridians in every county.

The range of Florida's pigmy rattlesnake includes all of Florida (however it is now considered to be rare in the Keys), southern Georgia, southern Alabama, southeastern Mississippi and extreme southeastern South Carolina. Within this range it inhabits the wire grass flatwoods, pine and palmetto flatwoods, salt- and freshwater marshes, tropical hammocks and areas around lakes or ponds.

Underneath logs and trash piles are favorite hiding places for pigmys. However during times of flood they have been seen in small trees and on cabbage palm leaves sometimes eight to ten feet above the water level.

A wide variety of animals such as mice, frogs, lizards, young water snakes, ribbon snakes, beetles and sometimes even the young of its own species make up the diet of pigmy rattlesnakes.

Dorsal coloration of the dusky pigmy is dark gray to black. The under surface is white, heavily blotched with dark brown or black. Its lateral spots are in series of three. Some individuals are uniformly brownish-black posteriorly. A reddish brown middorsal stripe, prominent in some individuals, is only evident in the neck region of others. A few pigmys I have seen have even been marked as though a little yellow arrow were painted down the top of the head. Melanism and albinism are particularly quite rare in this subspecies. However, some individuals in central Florida are heavily marked with black. *Barbouri* is generally darker in coloration than other subspecies of pigmy rattlesnakes.

Pigmy rattlesnakes are characterized by the large plates (rather than small scales of other rattlers) on the top of the head. This is one of the main factors differentiating the genus *Sistrurus* from *Crotalus*. Scale count at mid-body is usually 23.

Since they are pit vipers, pigmys are also characterized by a facial pit between the nostril and the eye. The pit is sensitive to the slightest temperature change and is used in detecting the warmth of prey.

The tail of the pigmy rattlesnake is generally longer in proportion to the rest of the body than in most other types of rattlesnakes. The tails of juveniles are sulphur yellow. At the tip of the tail are the rattles which are quite small. The "rattle" of an alarmed snake is barely audible. It sounds like the buzz an insect would make. A pigmy's rattle rarely has more than seven or eight segments. As with all varieties of snakes, pigmy rattlers shed their skin to facilitate growth. One or two sheds take place each year. Each time the skin is shed a new segment is added to the rattle.

The pigmy rattler is perhaps more commonly referred to as ground rattler. It often displays a fiery disposition, striking viciously in the direction of any annoyance. Its bite is painful but not often fatal, calls for medical attention nevertheless.

"Ground rattler," as it's often called locally, sometimes has a rather fiery disposition and may jab viciously in the direction of any annoyance. However, once in captivity it usually tones down a bit. Sometimes an individual when approached will flatten its body as if to appear larger.

Due to its small size, the pigmy rattler often provides a bite-size morsel for other animals such as birds of prey and king snakes. This may offer some explanation as to its secretive nature.

A bite from one of these snakes is usually painful but fatalities are almost nonexistent. Nevertheless, its bite should be taken seriously because symptoms can be severe and will usually require medical treatment. Some victims experience extreme swelling and difficulty in breathing. The average yield of venom from a pigmy rattlesnake is about 30 to 35 mg. as compared to an average yield of 450 mg. from an eastern diamondback rattlesnake.

Little is known about the pigmy rattler's breeding habits. However, they usually breed around October or November with six to eight young being born alive in August or September. Pigmys are about six to seven inches at birth.

The average size for pigmy rattlers is from 15 to 22 inches. The official record is 31 inches.

Population densities vary all over its range but it's particularly abundant in the prairie sections of the Everglades and in some sections west of Lake Okeechobee. It's generally considered to be plentiful over most of Florida.

Some individual specimens of pigmy rattlesnakes do well in captivity while others do not. Captured juveniles seem to do best in that situation. I remember one little rattler in particular which I kept some months ago that was affectionately named "Snifty." It was fed a mouse a week. It was a ferocious feeder and would have eaten even more often if food had been available. Having a furious disposition after first being caught, it later became quite docile. Nevertheless, upon the presentation of a mouse, Snifty killed its prey with lightning precision and fed immediately. Snakes, like people, are often quite interesting and have personalities of their own. □

The unknowns are greater than the knowns about

ACID RAIN

Some Putnam County residents surely thought this university professor and his students were crazy. Once a week they would drive 20 miles northeast of Gainesville to pour sulfuric acid and bicarbonate of soda into Lake McCloud.

It appeared they were polluters—in reality, they were pioneers in the study of acid rain in Florida.

For several years, University of Florida (UF) Assistant Professor of Environmental Engineering, Dr. Thomas Crisman, has been researching the presence and effects of acid rain on a series of sandy-bottomed lakes in Clay and Putnam counties.

The university has maintained a sampling program since 1977 of Lakes Geneva, Sheelar and Magnolia in Clay County and Lakes McCloud, Lowrey and Anderson in Putnam County. A two-year enclosure experiment ending last summer tested the reactions of aquatic life in Lake McCloud to increased and reduced acidity. The conclusions so far:

- All six lakes have become more acidic since 1977. The pH (a measure of acidity or alkalinity) of each lake has dropped from 1 to 1.5 points on a scale of 10. Their pHs now range from 4.7 to 5.2, each falling into the scientific definition of acidic.
- The enclosure experiment on Lake McCloud showed aluminum, which in high concentrations is toxic to fish, is released from the lake bottom when the pH falls to 3.7.

Beyond these statements, Crisman is cautious of expanding his findings further. Yet, the studies offer a warning to Florida.

Acid precipitation is occurring and is affecting susceptible freshwater lakes, as demonstrated by the changes in the six lakes which are almost totally unaffected by runoff from developed areas. And if acid rain continues and increases, "We may reach aluminum concentrations which may prove toxic to game fish populations," Crisman said.

Aluminum mixing with the water is death to aquatic weeds and death to fish as their gill filaments decompose. Acid rain causes an unbalance in the blood chemistry of fish. Extreme changes in acidity lead to cardio-vascular failure and deformities.

Crisman and his mentor, former University of Florida Professor of Environmental Engineering, Dr. Patrick Brezonik, chose to study the Trail Ridge lakes stretching from Gainesville toward Jacksonville because they are among the state's most susceptible to acid rain. Its effects are most easily seen on freshwater lakes with sandy bottoms where underlying and surrounding land does not contain buffering, alkaline minerals to counteract the acid.

Florida has only a few such lakes—most around Tallahassee, in Highlands County and in the Trail Ridge area.

Long an issue in Europe, eastern Canada and the northeast United States where industrial pollution slowly has turned neutral rain into dilute solutions of sulfuric and nitric acids, acid rain is falling in Florida, too.

Scientists measure acidity on a "pH" scale on which a reading of 1 is most acidic, 7 is neutral and 14 is most alkaline. "Pure" rain, however, normally has a pH near 5.6 because hydrogen ions and other natural phenomena tend to make rain slightly acidic.

The definition of acid precipitation is rain or snow with a pH below 5.6.

The average pH of rain today in Florida is 4.8, says E.R. Hendrickson, an environmental engineer and head of Environmental Science and Engineering, Inc. His Gainesville-based consulting firm has begun a three-year rain monitoring study for the Florida Electric Power Coordinating Group (FCG), an organization of 37 private and public electric utilities that includes Florida Power and Light Company.

The cost of setting up 13 monitoring stations across the state and analyzing the rainfall for one year will be approximately $500,000. The three-year project could cost Florida's utilities, and their customers, $2.8 million.

Why such a large financial commitment to acid rain study by the utilities?

Seventy-five percent of sulfur dioxide released into the atmosphere comes from electric generating plants, scientists and even utility spokesmen agree. Sulfur dioxide, released when oil or coal is burned, becomes sulfuric acid to fall on the earth in the form of acid precipitation. Automobiles and other in-

Lynn Stone

ternal combustion engines are believed to contribute approximately 40 percent of the nitrous oxides to the atmosphere.

Yet W. Samuel Tucker, Jr., director of environmental affairs for FP&L, says, "There's been a lot of alarmist statements about acid rain over the past several years by environmental groups and the Environmental Protection Agency. It's a knee-jerk reaction. Our feeling is, 'Hey, wait a minute. What's the problem? We haven't defined it.'"

Indeed the unknowns about acid rain are greater than the knowns. Scientists, government regulatory agencies and industry spokesmen all agree this special kind of pollution is extremely complicated, differs in effects from region to region, and requires much more study.

Compounding the problem of acid rain study is that it is hardly ever a locally produced one. Stacks taller than 180 meters now send aloft the emissions of most coal-combustion plants allowing air currents to direct sulfur oxides hundreds, sometimes thousands, of miles away from their sources.

But the concern of the electric utilities should be clear. Oil is out by federal decree. Nuclear and coal-powered generating plants are in, also by federal decree.

As the U.S. House of Representatives Subcommittee on Health and the Environment debate revisions to the Clean Air Act, the FCG and its member utilities have made their position clear on sulfur dioxide emissions and acid rain.

An FCG position paper on the Clean Air Act calls for deletion of the requirement to remove 90 percent of sulfur dioxide emissions when high sulfur coal is

By Marion Phelps

burned. The only way to remove 90 percent of sulfur dioxide is to construct "scrubbers" in the stacks that send power plant smoke into the air.

Scrubbers and the sludge they generate are expensive propositions for the utilities and their customers. A scrubber alone will cost approximately $2 million to $4 million, depending on the size of the plant.

The sludge is another problem. At a municipal coal-powered generating plant due to come on-line soon in Lakeland, the sludge will be mixed with ash and hardening chemicals. The result will be a cement-like compound to be dumped in a land fill.

Plans for a coal-powered generating plant in Jacksonville, co-owned by the Jacksonville Electric Authority and FP&L, call for transforming the sludge into gypsum of a quality to be used in making wallboard.

Whether the process will be commercially successful is still questionable, according to Buck Oven, administrator of power plant siting for the Department of Environmental Regulation (DER).

The stories of what has already happened outside of Florida because of acid rain abound.

The Governor of Maine recently testified in Congressional hearings that acid rain is killing animal and plant life in the lakes of his state. Canada and the United States are constantly at odds over whose acid rain is falling on whom. A Canadian legislator recently proposed levying an entry fee on all Americans entering his country to pay for the effects of acid rain allegedly produced by United States industrial pollution.

The loss of fish in the Adirondack Mountains and in Scandinavian countries is well documented. The Scandinavians—like the Canadians—blame their neighbors across the English Channel.

While some utility representatives, such as Tucker, may not be ready to make a link between acid rain in Florida and industrial emissions, some state officials are.

"In Europe, they are satisfied that coal combustion and industry are responsible for acid rain. Similar phenomena have been observed in the United States. I don't have any trouble making the link," said Randy Kautz, a senior biologist with the Florida Game and Fresh Water Fish Commission in charge of power plant siting review.

Aware of the UF studies, Kautz says, "We know acid rain is here." But he is not ready to sound an all-out alarm; existing damage and potential damage to Florida fisheries and even agriculture still are largely unknown.

"We just need to keep our eyes open and watch what happens," he said.

Florida government will be watching—analyzing the results of UF research and results of the FCG rain monitoring program.

The FCG and its consultant, Hendrickson, pledge the results of the rain monitoring program will be unbiased. "The reputation of my company is not something I would want to jeopardize," said Hendrickson, head of one of the nation's largest environmental consulting firms.

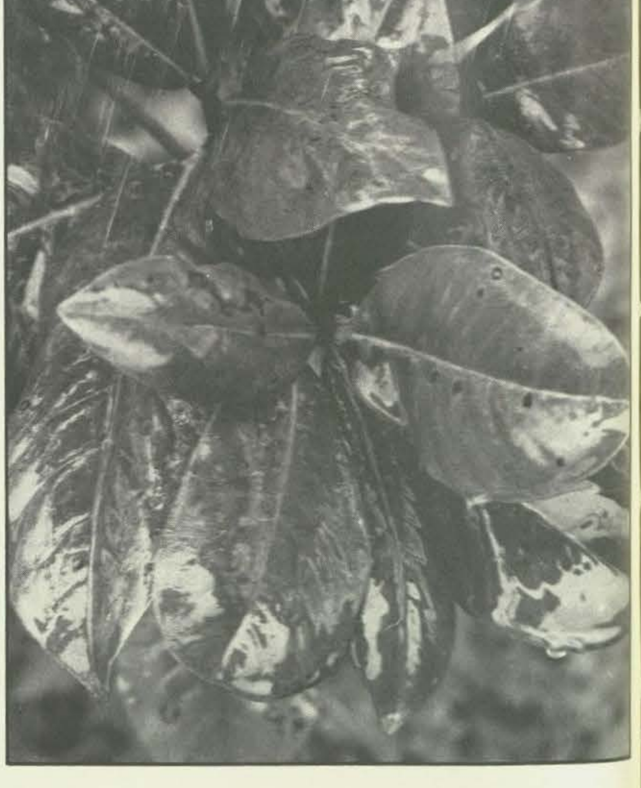
Much to the FCG's credit, plans for the monitoring system were submitted for critique to DER, UF and the National Oceanic and Atmospheric Administration. According to FP&L's Tucker, all of their suggestions were made a part of the program.

While the scientific field work is completed and analyzed, DER is taking a different tack—a mathematical, computerized prediction of the economic effects increased sulfur dioxide emissions and the acid rain would have on the state.

"It will measure all the costs to society, damages to ecosystems, recreation, fisheries, agriculture and benefits to industries and consumers," said DER project director Tim Lynch.

Understanding well that one man's profit is another man's loss, Lynch spoke cautiously of what the analysis might reveal. "Speaking frankly, you can reverse the words, damages and benefits, depending on your vantage point," he said. ☐

Acid rain kills plant and animal life. Wallace Hughes



Canoe handling instructions at Lake Eaton's waterfront in the Ocala Forest. Vinard Hitt

Florida Game & Fresh Water Fish Commission's

1982 Youth Camps

The young boy rummages through the old family footlocker looking for his father's compass.

Or perhaps, the young girl meticulously rethreads the worn tennis shoes with the new laces that Mom just brought back from the grocery store.

So many similar events will take place as child and parent alike prepare for the young one's most major seasonal outing. It's all due to the arrival of the summer camp season.

Hundreds of thousands of families across the continent will be packing suitcases and sending children into wilderness settings for supervised encounters with the natural elements.

And in Florida, some 2,000 children will have the chance to participate in that vestige of Americana as the Game and Fresh Water Fish Commission opens two wilderness campsites for young folks.

The rustic, back-to-nature camps will allow for a semi-primitive camping experience for boys and girls from eight to 14 years of age.

The Ocala Youth Camp is located on Lake Eaton in the Ocala National Forest. The Everglades Youth Camp is located in the J.W. Corbett Wildlife Management Area in the West Palm Beach area.

The 1982 exploration will begin on June 13 and run through August 7. Both co-educational camps will maintain one-week sessions with campers restricted to one-week stays. The cost is $75 per camper per week.

A brochure detailing the youth camp program and including an application form is available from regional offices of the Commission listed on page 48.

Youngsters will be learning the fundamentals of wildlife identification, outdoor ethics, the safe use and handling of firearms, archery, survival skills, fishing, canoeing, and enjoying other outdoor-oriented activities.

(Parents, be sure to include that pencil, stationery and plenty of stamps in that suitcase!) —*Ron Stock*

Sessions begin June 13

Florida Division of Forestry's
1982 SUMMER ENVIRONMENTAL EDUCATION PROGRAM

Collecting specimens for a closer look at an aquatic ecosystem, one of many hand-on activites at camp.

Getting young people in closer tune to nature and giving them a better understanding of the role that forests play in Florida's economy and environment is what the Division of Forestry's Summer Environmental Education Program is all about.

And how much closer to nature can you get than depending on your knowledge of it for survival.

Advanced students at the forestry camps do just that, hiking through deep forests with only maps, compasses and their knowledge of various ecosystems to guide them, and gathering edible plants, animals and fish for a "survival meal."

Imagine a meal that begins with a saw palmetto-heart salad that's seasoned with a touch of meadow beauty and pepperweed leaves, followed by a main course of fried fish or rattlesnake, stewed soft-shell turtle or roasted armadillo, and topped off by a hot blackberry cobbler. Wash it down with fresh sassafras tea and you would have had a meal typical of what nearly 200 students—6th grade through the 11th—will experience this summer.

They are the elite of around 1,200 students who will participate this summer in the Division of Forestry environmental programs at Withlacoochee and Blackwater River State Forests.

Students pay $73—the exact cost to the State of Florida—for a week's outing at one of the two state forests.

They're housed in modern dorms, according to age and gender, eat three hot meals a day and are introduced to the biggest classroom you've ever seen...several hundreds of acres of unspoiled forestland.

Each camper receives a detailed manual with lessons in wilderness survival, water safety, first aid, orienteering, animal and plant life in the region, soil conservation, land use and environmental protection.

Divided into groups of no more than eight, each instructed by a professional forester, forest ranger, public school teacher, or college student majoring in environmental or biological science, the students are treated to the kind of hands-on learning that can seldom be offered at school.

A lesson in plant life might have students taking core samples of a tree to see how rapidly it has grown and how environmental factors influenced its growth. During a study of water systems, students analyze water samples to determine the pH level, then discuss the types of plants and fish that might live in the water based on the results of their test.

Plenty of time is reserved for recreation, including swimming, basketball, volleyball, ping pong, softball and crafts. Some of the recreation even becomes part of the curriculum. One day is spent canoeing down the Withlacoochee or Blackwater River. The trip takes a whole day because frequent stops are made along the way to explore different types of forests.

At the conclusion of the week, camp instructors select a dozen students—at each center—for the coveted advanced week. The lucky ones, chosen on the basis of interest, participation and conduct, stay on for the second week, AT NO ADDITIONAL COST.

They move deeper into the forest, sleep in tents, cook their meals over campfires and spend their time hiking and putting to practice the knowledge and skills learned the first week.

The highlight of the week is the survival dinner the last night.

The program begins June 13 and runs for ten weeks at Withlacoochee and nine weeks at Blackwater. Students are free to choose either center. Withlacoochee accepts 75 students per week, while Blackwater is limited to 45.

To apply, contact any Division of Forestry office, or write: Florida Division of Forestry, Environmental Forester, Collins Building, Tallahassee, FL 32301. *—Barry Gay* □

By CHARLES WATERMAN

Gators vs. Fishermen

Twenty years ago a guide named Rocky Weinstein, who was a fine fisherman, got considerable space in the northern prints by catching alligators on ordinary fishing tackle.

At this point the tenuous legality of his operation isn't any longer important, but the general public apparently regarded landing a 4-foot alligator as being in the same category as setting a new world's black bass record.

Rocky would just find a gator sunning himself in an area where there was considerable human traffic and the gators were relatively tame, and then he'd pester it into grabbing a lure. If the gator was small enough, Rocky would land it to the applause of writers and photographers. It helped make him famous.

I never tried to catch one, but I've had a bit of trouble avoiding it from time to time. Another fellow and I had to abandon a quarter mile of lakeshore once because an obnoxious 5-footer wouldn't leave our plugs alone. We started the outboard and tooled off for a considerable distance, but the little varmint followed us. When we kept yanking the plugs away from him, he lost his temper and grabbed an oar. So we had to cross the lake to get away.

I've hooked them by accident from time to time, generally with loss of my lure. Like a bass, a gator seems to have brief periods when he'll grab almost anything.

There are plenty of gators these days and frequent inquiries about their danger to fishermen. Generally there isn't much, the dangerous gators usually being those that have been fed by humans and likely to get grumpy with *Homo sapiens* when the menu is wrong or the service bad.

It's different with dogs.

A gator hunts dogs. For that matter, a wild gator is on the lookout for raccoons and possibly opossums—and his taste for dogs comes naturally. Of course, a big gator will dine on a small gator.

Comes the spooky part:

A barking dog is known to attract gators. In fact, gator hunters once used noisy dogs as decoys. Where did alligators (even a long way from settlements) learn to come to a barking dog?

Maybe it's because foxes sometimes bark, but a dog-like animal lived in Florida eons ago. My theory is that the barking attraction has lasted through those thousands of years.

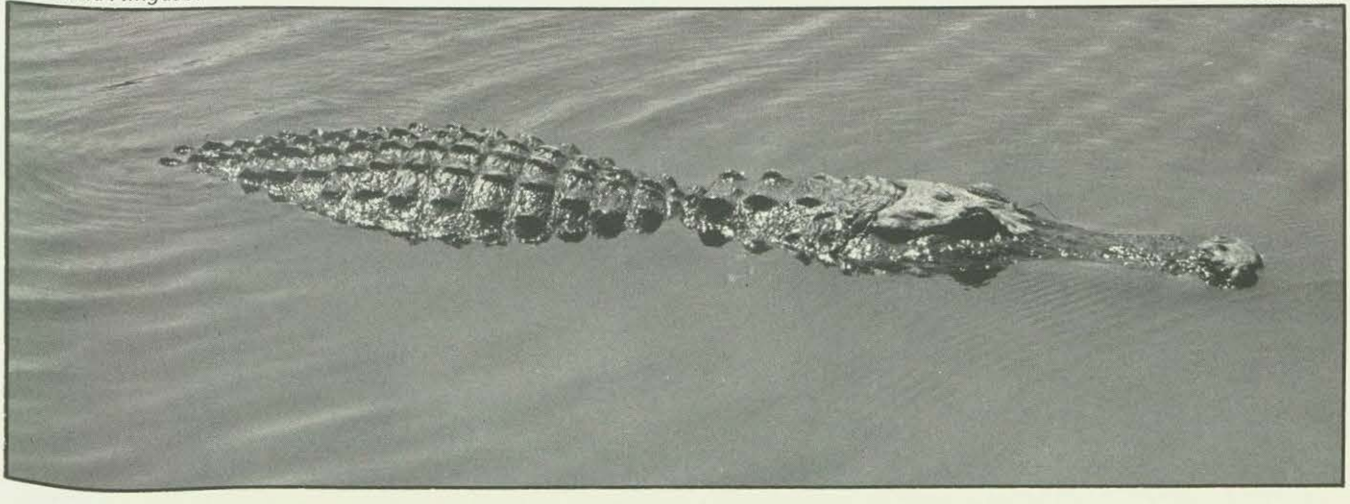
Famous Plugs

Of all the plugs that have annoyed bass during the past hundred years, the most famous ones are those that work in a variety of situations and with a variety of methods. Think back and you'll note that most of them are floaters that go under when retrieved.

Of course, there have probably been more of this type than any other and there is a reason. They aren't

Florida Alligator

Gene Smith



specialists. Some of the ancients are the darters, built by dozens of firms but best known from Creek Chub; the Bass Orenos, built by South Bend; the Pikies from Creek Chub and the Heddon Lucky 13. Much later came the Rapala and the others in its image like Bagley's Bang-O-Lure and the Rebel.

Although most of them made in America were aimed at black bass, they catch almost all other freshwater gamefish and are saltwater basics. A main reason for their success is that these baits are prospectors. You can do a lot of things on a single cast. You plop it down on the surface, jiggle it slightly, jerk it briskly, crank it under slowly and then speed your reeling to get it deeper and faster. Thus in one cast you have done considerable prospecting. After a period of this varied operation, you hope to learn just how the fish want their lures and you might take off the basic one and put on a specialist—a deep diver or a surface bait.

Almost invariably, even though a new lure often gets its reputation through a straight retrieve, it isn't in use for long before experts begin to discover other ways of working it. In fact, they've probably done that in the first 15 minutes they've used it. Generally the manufacturer has been through that, too, and he probably encloses a little instruction sheet that is promptly thrown away.

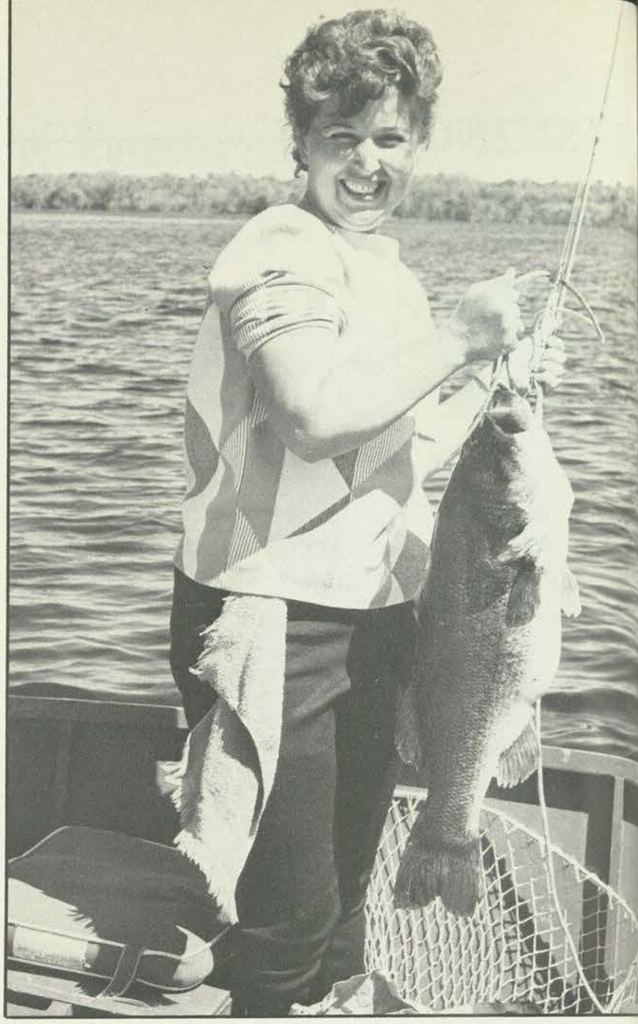
Probably the one thing that separates the masters from ordinary fishermen is innovation—the willingness to try something different. Translate that to *imagination* and you may have the main secret of success.

Dry Fly Purist

I read a letter in a Florida magazine in which the writer gleefully tells how he put down "one of these dry-fly purists," stating that the fly fisherman was "somewhat disdainful of us uncouth old Cracker plug-chunkers."

Now for all, I know the specific dry-fly fisherman in question was overbearing and deserving of anything he got, but the classification, "one of those dry-fly purists," smacks of an attitude that's bad news. Until you've given the other guy's game a good try, slighting opinions of his method are misplaced. Now I guess I am listed with the Cracker plug-chunkers but I've done half a century of dry flies too, and nobody rates any put-downs in either class if he learns his game.

The fly business is especially scorned by many Floridians for reasons I can't fathom. In fly fishing for shad and bothering no one, I've been called a list of X-rated names by passing trollers and the only reason I can find for it is that they aren't fly fishing and I am. The reason for resentment is no more logical than having a Ford driver call you names because you're driving a Chevrolet.



Charles Waterman

Now it's a matter of terminology, which may not be entirely accurate, and although "dry-fly purist" may be a funny term in quarters not familiar with the species, believe me there has been some merriment on the other side of the creek when fly fishermen of the North discuss people who "fish with rubber worms."

Being a master at nothing but having gawked at a pretty good cross-section of this world's sportfishing, I've found that the most skillful practitioners of the various kinds of it are pretty much on a par, the delicate touch with a slowly worked plastic worm on the bottom or a bottom-bumping jig being about as advanced as the feel for dry-fly fishing.

Remember that all sport fishing is a matter of deliberate handicap, and there is little doubt that dynamite or poison will get more fish than any hook-and-line effort. Most fishermen make their personal restrictions. There's the bass fisherman who will use nothing heavier than 4-pound line, the fellow who will use any lure made but will not use natural bait "because it's not sport when you stick a hook in his food"—and so on.

There are thousands of fishermen who never kill a fish in the belief that a fish is too much fun to be caught only once. There are fishermen who will not use live bait in the belief that beating a shiner on the water or dragging him to death is cruel. All of this is a matter of viewpoint and terminology—especially the latter. But in fishing, as in anything else, the chances are you'll never get so good that there isn't someone else who's better at your game, or another game that's just as good.

Jumping Fish

Getting a fish to jump for a camera is so difficult, it has led to all sorts of chicanery but sometimes he does it too well. In looking through the photo file the other day, I got mad all over again when I found an ancient scene of my wife playing a barracuda from a rocky point.

It isn't a bad shot but editors turned it down. Anyone could tell, they said, that it was a fake picture. I could never explain that he was big and mean and bent on getting away.

Lost Gear

I lost a casting rod, reel and lure over the side the other day. I'd let the bait dangle out of the boat while I was rowing another fisherman through a stand of bullrushes. Some time during the trip, the spinnerbait had caught and pulled the outfit out of the boat. I never missed it until I started to fish myself some time later.

While summarizing my stupidity I began to think of the ways I've lost maybe a dozen outfits in my life. A recitation might save a couple of hundred bucks for somebody.

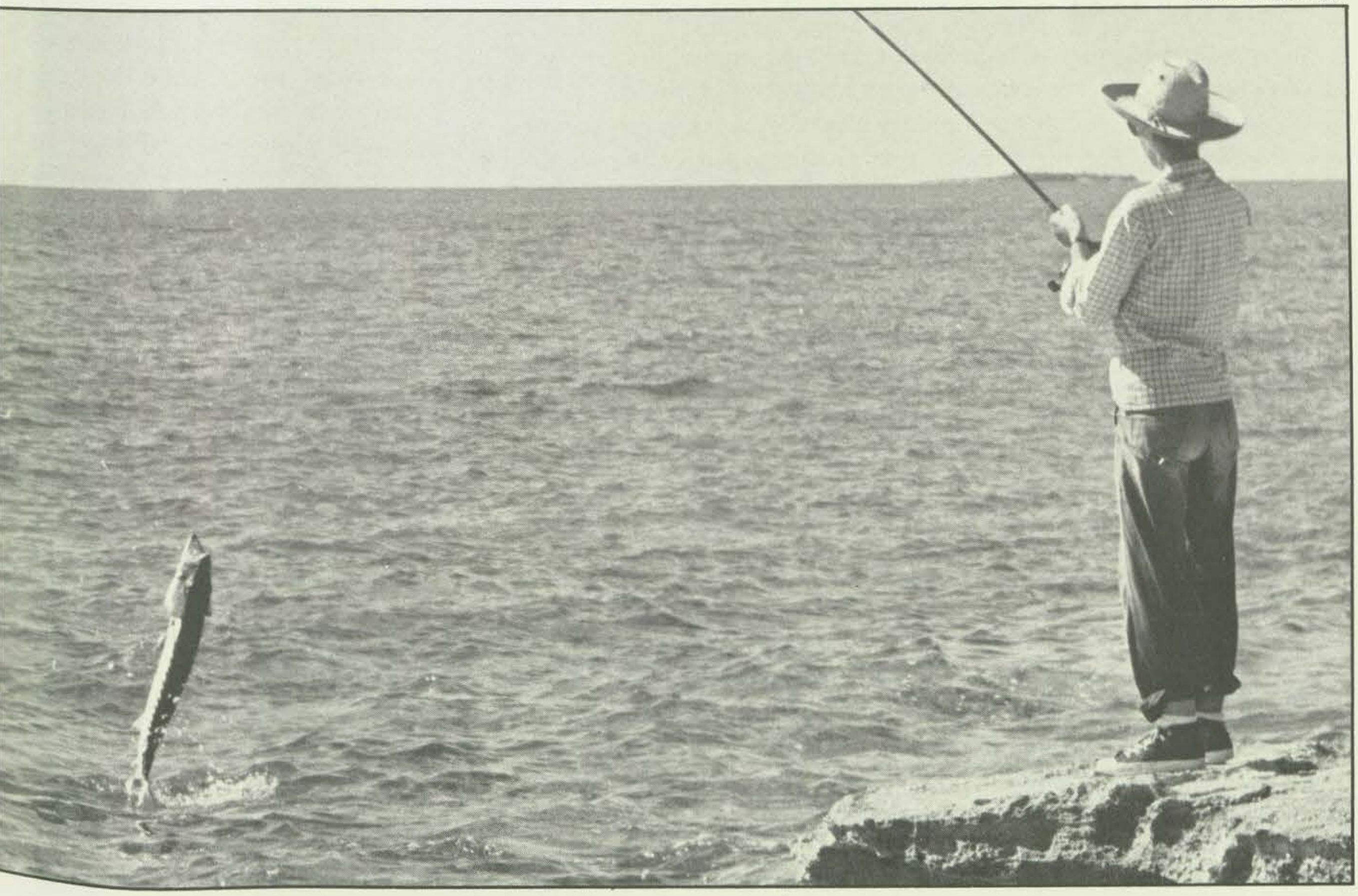
The dangling lure has done it for me before, once when I was going wide-open in an outboard boat and a swinging plug caught in the water.

In our family we've lost more gear by laying it on a car and driving out from under it than any other way. Three years ago I laid a new, heavy-duty baitcasting outfit on top of a station wagon and drove off. Once in Canada it was a flyrod and reel made for steelhead that I lost the same way. My wife did it with a trout rod.

While gabbing with somebody I have tossed a sinking lure overboard without attaching it to the line. I have turned up an electric tailgate window on a row of flyrod tips. I have jammed the lid down on a short rod case and busted the tips of baitcasting rods. I have driven a boat into the brush and broken tips. I'm not very smart about these things but maybe you aren't either. □

Successful plugs are the ones with versatility. The bass in photo at left took a "swimmer" worked above eel grass. The photo below, showing a jumping barracuda, was the one editors turned down because it looked faked. It wasn't!

Charles Waterman



CONSERVATION SCENE

Panther-State Animal

The Florida panther has been designated the official state animal as a result of a bill signed March 29 by Governor Bob Graham.

State Representative Bill Bankhead (R-Jacksonville) and State Senator Joe Carlucci (D-Jacksonville) were sponsors of the bill. They said it was an example of democracy in action as Florida schoolchildren were invited to select an official state animal in a project to teach them about the election process and government.

The schoolchildren overwhelmingly chose the Florida panther, an endangered species, over the alligator and the manatee. The wishes of the children prevailed over attempts to designate the alligator, despite its second place showing in the poll, when the bill reached the Legislature.

Florida Panther Leonard Lee Rue III

"I'm pleased to sign it, although I was a manatee man myself," Graham was reported to have said at the time he signed the legislation into law.

TAKE A KID FISHING

An appalling number of youngsters dash through childhood and adolescence without ever encountering a bluegill or bullhead.

And, say the fishing folks at Mercury Outboards, too many parents miss the experience of a lifetime by not witnessing such a memorable achievement.

A youngster's "first fish" is mighty important. Long after a ball game is forgotten, a bicycle discarded, this exploit in the outdoors will have significance. And the adult involved earns eternal respect and worship.

But introducing kids to the sport may not be easy.

Teaching boys and girls to fish requires personal discipline by the instructor.

When you strike off for the pond with youngsters in tow, leave your own gear at home. Their equipment should be simple—cane poles or closed-faced spin-casting rigs. Help; instruct; encourage but don't be too insistent.

Let them make their own mistakes, then patiently explain the correct approach.

Start out with a bucket of minnows or can of worms. They'll produce fish for the novice quicker and easier than artificial lures. And, at this stage of the game, it's results you want.

Within a short time, your teaching efforts will pay off and, with that first fish, an important milestone in life has just been passed.

Be forewarned, however, a youngster just hooked on fishing will beat you out of bed every time.

Rollison Retires

Wildlife Reserve Sergeant Howard Rollison of Inverness has "retired" after more than 10 years of service with the Commission's volunteer Wildlife Reserve program. Rollison joined the program in July 1971 when the project was still in the formative stage.

"A great many changes have been made during the past 10 years and Sergeant Rollison has always been out front with his leadership ability," said Captain Charles W. Gaylord, reserve program coordinator. "Rollison has put in a great many hours on numerous Commission assignments in wildlife management, fish management, law enforcement and informational services."

Rollison rose to the rank of lieutenant colonel in the U.S. Army, and served during World War II, Korea and Vietnam, a full career for anyone. Upon retirement from the service, he 'enlisted' with the Wildlife Reserve program. Now after 10 years of service with the Commission, he is slowing down some, at his doctor's orders.

"Maybe I can get in a little more hunting and fishing now than I've been able to during the past," the lieutenant-colonel-turned-sergeant said.

Peggy Johnson Appointed

Mrs. Ralph (Peggy) Johnson of Miami is the first woman to be appointed to the Wildlife Alert Reward Association. Mrs. Johnson was named to the Association by Colonel Robert M. Brantly, Executive Director of the Commission. She will serve with 12 other individuals who compose the Association. Wildlife Alert is a program whereby citizens may receive cash rewards for assisting with apprehension of wildlife and freshwater fish law violators by providing information leading to their arrest.

Mrs. Johnson has been active as a lobbyist with the Florida Legislature concerning environmental matters. She is a member of the Broward Airboat Association and a member of the Board of Directors of the Florida Wildlife Federation.

In other Association action, David O. Charland, a Fort Lauderdale businessman, was re-elected to the position of chairman of the Association during the quarterly meeting in Palatka March 8. Key Scales III of Weirsdale was re-elected vice chairman.

The Pits

If the story on pages 13-15 about bass fishing in a phosphate pit got your interest up, then you might want to make note of the reclaimed phosphate areas open for public fishing.

The Florida Phosphate Council has a free brochure, "A Guide to Recreation on Florida's Reclaimed Phosphate Lands," that details the recreational opportunities available to the public.

The Peace River Park near Bartow includes a 50-acre lake complete with boat ramp. There are also ramps available at the Medard Park and Reservoir south of Highway 60.

Fishing is also available at the Mary Holland Park near the Bartow Civic Center, Saddle Creek Park in Lakeland, Lake Crago Park, and Dover Park.

Copies of the brochure can be obtained by writing the Florida Phosphate Council, P.O. Box 5530, Lakeland, FL 33803-0027.

Trail Bike Radios

The Commission's Division of Law Enforcement has discovered the effectiveness of trail bikes for law enforcement patrol. The major problem, though, has been finding the perfect radio for bikes.

Trail bikes have no electrical system, offer no place to shelter a radio and can literally shake a radio apart. A personal portable radio cannot be used since bikes are operated distances from base stations which require greater transmitter power than a portable radio can produce.

Commission Consultants, Inc., of Bradenton, has fabricated a radio combination which has been installed and operated on one of our bikes for eight weeks. The radio works fine and appears to meet all the division's needs. The same type of radio, incidentally, is being considered for use on Honda bikes by the Thailand government.

Tagged Shad Caught

American shad tagged by fishery biologists of the Canadian government's fishery agency in the Cumberland Basin of the Bay of Fundy are again appearing in the St. Johns River.

Two tagged roe shad were caught in a gill net operated below the Palatka Bridge on December 7 and 9, 1981. Numbers on the tags identified the fish as having been tagged in the Bay of Fundy on July 16 and 20, 1981.

A very significant percentage of the Atlantic seaboard shad tag returns during the past two years have been from the St. Johns River.

REPORT WILDLIFE LAW VIOLATORS...

WILDLIFE ALERT!

THEY ARE STEALING FROM YOU!

TACKLE BOX TIPS

One needn't be a pipe smoker to appreciate pipe cleaners. They are among the most useful items a fisherman can own.

Twisted around sections of a jointed fishing rod, they hold the units firmly and safely in place on trips to and from the fishing hole or anchor them to a hiking stick on a back-pack.

A pipe cleaner is ideal and ever-lasting for hanging reels from nails or hooks in a storage shed, allowing it to dry and keeping it ready, yet out of the way, for the next trip. In a pinch, a pipe cleaner can substitute for a broken rod guide, or it can anchor the feet of a spinning reel to a rod seat.

Courtesy UMCO Corp.

Unlawful To Feed Key Deer

Florida's endangered population of tiny Key deer is in danger of literally being "loved to death" but a new regulation seeks to reduce that hazard.

Beginning July 1, the Game and Fresh Water Fish Commission will issue citations to people who feed the little white-tails.

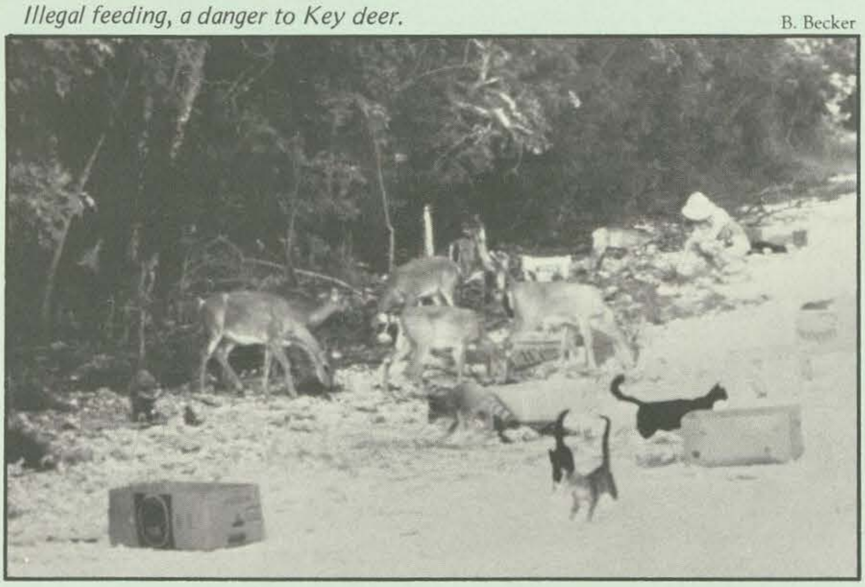
Well-meaning people have long fed the deer in spite of warnings and pleas by Key Deer Refuge personnel not to do so. Feeding tends to concentrate the animals, increasing their vulnerability and creating other problems.

An estimated 350 to 400 Key deer roam the Florida Keys, most of them found in the sanctuary on Big Pine Key. Each year from 50 to 60 are struck by automobiles and killed. Another five to 10 are killed by poachers.

Feeding the deer brings them close to the roads in large numbers. Biologists fear that this concentration leads to increased fighting among the animals and could prove disastrous should disease break out in the herd.

Most people are not aware of the dietary needs of deer and people have been observed feeding them everything from bubble gum to fried chicken.

Feeding Key deer will become a misdemeanor punishable by a fine of up to $500.



Illegal feeding, a danger to Key deer.

B. Becker

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Floridana

COLONIAL NESTERS NEED HELP

Nesting colony of egrets, herons, wood storks, cormorants and pelicans.

It's that season of the year when outdoor recreational activities are on the upswing. It's also the time when colonial nesting birds raise their young. The problem comes when humans, frequently accompanied by the family dog and sometimes aboard a dune buggy or other off-road vehicle, invade the nesting grounds. Many of these places are in recreationally attractive dune areas and along beaches. Much of the time the damage visitors and their pets do – destruction of eggs and young or disturbance of the area so nests are abandoned – goes unknown and unrecognized.

With the ever increasing loss of nesting areas through development, every remaining nesting place – beach or rookery site – becomes increasingly important.

The Game and Fresh Water Fish Commission knows the location of many of these places and, where possible, steps have been taken to protect them. Entry into any of these posted areas during the nesting season is considered harassment or molestation of wildlife which is punishable by law. There are no doubt many nesting areas that have not yet come to the attention of the Commission.

You can perform a valuable conservation service if you will notify the nearest regional office of the Commission, addresses of which are listed on the facing page, of any such nesting sites that are not posted.

Your help is needed to protect this valuable part of your Florida heritage.

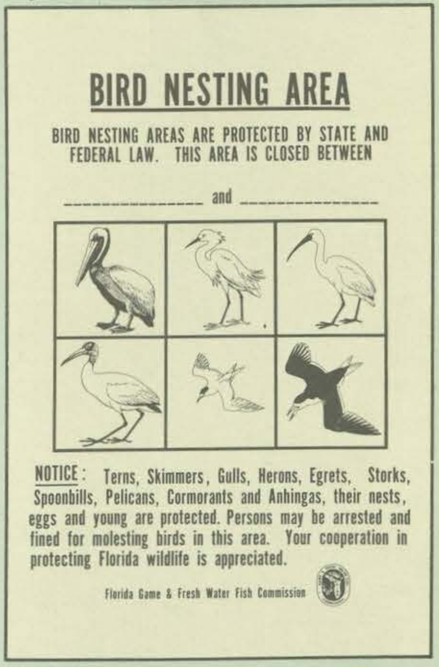
–Morrie Naggiar

Beach nest and eggs of black skimmer.

Beach nesting colony of terns and skimmers.

Photos by Lovett Williams

Sign used at colony nesting sites.



BIRD NESTING AREA

BIRD NESTING AREAS ARE PROTECTED BY STATE AND FEDERAL LAW. THIS AREA IS CLOSED BETWEEN

______________ and ______________

NOTICE: Terns, Skimmers, Gulls, Herons, Egrets, Storks, Spoonbills, Pelicans, Cormorants and Anhingas, their nests, eggs and young are protected. Persons may be arrested and fined for molesting birds in this area. Your cooperation in protecting Florida wildlife is appreciated.

Florida Game & Fresh Water Fish Commission

Mangrove or Gray Snapper

Burton McNeel